

# វិទ្យាស្ថានជាតិអប់រំ

NATIONAL INSTITUTE OF EDUCATION

មជ្ឈមណ្ឌលស្រាវជ្រាវគំរូកោសល្យជំនាន់ថ្មី

NEW GENERATION PEDAGOGICAL RESEARCH CENTER



## ការយល់ឃើញរបស់គ្រូនិងសិស្ស លើវិធីសាស្ត្រ បង្រៀនតាមបែបរិះរក ដែលអនុវត្ត ចំពោះមុខវិជ្ជា វិទ្យាសាស្ត្រសង្គមនៅកម្រិត មធ្យមសិក្សា ទុតយក្សមី

Exploring Teachers and Students' Perception on  
Applying Inquiry Based Learning (IBL) in Social Science  
Subjects at Upper Secondary School

A Mini-Thesis

In Partial Fulfilment of the Requirement for  
Master's Degree of Education in Mentoring

Khat Sareat

December 2021

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## Exploring Teachers and Students' Perception on Applying Inquiry Based Learning (IBL) in Social Science Subjects at Upper Secondary School.

The Case Study at New Generation School (NGS), Preah Sisowath  
Upper Secondary School

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December 2021

## **មូលដ្ឋានសង្ខេប**

គោលបំណងនៃការសិក្សានេះគឺដើម្បីស្វែងយល់អំពីដំណើរការនៃការអនុវត្តវិធីសាស្ត្របង្រៀនបែប រិះរក (IBL) ដែលត្រូវបានអនុវត្តនៅក្នុងការសិក្សាក្នុងថ្នាក់វិទ្យាសាស្ត្រសង្គម។ ដើម្បីទទួលបានទិន្នន័យជាក់លាក់ អ្នកស្រាវជ្រាវបានប្រើប្រាស់វិធីសាស្ត្រស្រាវជ្រាវបែបគុណវិស័យដែលរួមបញ្ចូលការសម្ភាសន៍សួរដេញដោលបន្ត (Semi-structure Interview) ជាមួយត្រូវវិទ្យាសាស្ត្រសង្គមចំនួន 5 នាក់ និងសិស្សចំនួន 9 នាក់ដែលបានចូលរួមក្នុងការសិក្សានេះ។ ការជ្រើសរើសយកគំរូសំណាកសម្រាប់អ្នកចូលរួមក្នុងការសិក្សានេះគឺរើសតាមវិធីសាស្ត្រ “ជ្រើសរើសតាមគោលបំណង ( Purposive-sampling) និងការរើសតាមរយៈសួរបន្ត (Snowball Sampling) ។ ហើយការវិភាគតាមប្រធានបទ (Thematic analysis ) ត្រូវបានប្រើប្រាស់យ៉ាងទូលំទូលាយ ហើយអ្នកស្រាវជ្រាវបានប្រើ Microsoft Word ដើម្បីផ្តុំគោលគំនិត (Coding) និងចម្លងទិន្នន័យ។ ការសិក្សានេះធ្វើឡើងនៅសាលាជំនាន់ថ្មី វិទ្យាល័យព្រះស៊ីសុវត្ថិ (NGS:PSSW) ។ លទ្ធផលនៃការសិក្សានេះផ្តល់នូវសារៈសំខាន់ចំពោះការអនុវត្តវិធីសាស្ត្របង្រៀនបែបរិះរកក្នុងថ្នាក់វិទ្យាសាស្ត្រសង្គមពីកត្តាសំខាន់ៗ៖ 1) ការយល់ឃើញរបស់គ្រូនិងសិស្សចំពោះវិធីសាស្ត្រ IBL ក្នុងការរៀនមុខវិជ្ជាវិទ្យាសាស្ត្រសង្គម។ 2) គុណសម្បត្តិនិងបញ្ហាប្រឈមនៃការអនុវត្តវិធីសាស្ត្រIBL ក្នុងការរៀនមុខវិជ្ជា វិទ្យាសាស្ត្រសង្គម និង 3) អ្នកស្រាវជ្រាវក៏បានប្រមូលនូវដំណោះស្រាយមួយចំនួនដែលអ្នកចូលរួមបានប្រើដើម្បីឆ្លើយតបនឹងបញ្ហាប្រឈមនីមួយៗ។ ការស្រាវជ្រាវបានបង្ហាញថា វិធីសាស្ត្រ IBL មានប្រយោជន៍ខ្លាំងណាស់សម្រាប់ទាំងគ្រូ និងសិស្ស ដោយជួយពួកគេក្នុងការអភិវឌ្ឍចំណេះដឹង ជំនាញ និងការសិក្សារបស់សិស្សតាមរយៈការស្រាវជ្រាវ ការពិភាក្សា ជាជាងចាំតែស្តាប់ និងកត់ត្រា។ ទោះបីជាការអនុវត្តវិធីសាស្ត្រ IBL ក្នុងមុខវិជ្ជាវិទ្យាសាស្ត្រសង្គមប្រឈមមុខនឹងបញ្ហាមួយចំនួនក៏ដោយទាំងគ្រូនិងសិស្សបានទទួលស្គាល់ថា IBL នៅតែជាវិធីសាស្ត្រដ៏មានប្រយោជន៍មួយដែលនាំសិស្សឱ្យសកម្មក្នុងការរៀន និងយល់មេរៀនបានល្អខណៈពេលដែលគ្រូអាចសម្រេចរក្សាបំណងនៃមេរៀនផងដែរ។ អ្នកស្រាវជ្រាវស្នើឱ្យអ្នកស្រាវជ្រាវនាពេលបន្ទាប់ទៀតធ្វើការសិក្សាជាមួយនឹងសំណាកពីគ្រប់មុខវិជ្ជាវិទ្យាសាស្ត្រសង្គមរួមទាំងការសង្កេតក្នុងថ្នាក់រៀនដើម្បីទទួលបានទិន្នន័យកាន់តែមានភាពសុក្រិត។

## ABSTRACT

The purpose of this study was to look into the application of IBL in social science classes. To obtain accurate data, the researcher employed the Qualitative research method, which included semi-structured interviews with five social science teachers and nine students who participated in this study. Purposive and snowball sampling has been applied to select participants and Thematic analysis was used extensively, and the researcher used Microsoft Word to code and transcribe the data. This study was conducted in New Generation School Preah Sisowath (NGS: PSSW) upper secondary school. Two teachers from each of the three subjects in social science (Khmer Literature, History, and Moral & Civic) and nine students from grade 10th, 11th have been selected to participate in this study. The result of this study provides the significance to the application of IBL in social sciences classroom from different three main factors. 1) The teachers and students' perception toward IBL in the social science classes, 2) the advantages and the challenges of applying IBL in social sciences and 3) the researcher also collected some solutions that the participants had used to respond to the challenges. The findings revealed that IBL is extremely useful for both teachers and students by assisting them to develop their knowledge, skills, and the students' learning by doing research and discussing rather than listening and taking note. Even though the application of IBL in the social science classes faced some challenges, both teachers and students accepted that IBL is still a useful method that brings the students active and understand the lesson well while the teacher can reach the objective of the lesson too. However, the researcher would suggest future researchers conduct the study with target samples from all social science subjects, including classroom observation, in order to obtain findings that are more accurate.

**Keywords:** Inquiry-based learning, Social science subjects, Students learning levels

**SUPERVISOR’S RESEARCH SUPERVISION STATEMENT**

TO WHOM IT MAY CONCERN

Name of Program: Master’s Degree of Education in Mentoring

Name of candidate: KHAT Sareat

Title of thesis: *Exploring Teachers and Students’ Perception on Applying Inquiry Based Learning (IBL) in Teaching and Learning in Social Science Subject at Upper Secondary School. A Case Study at New Generation School, Preah Sisowath (NGS PSSW) Upper Secondary School*

This is to certify that the above-named candidate under my direct supervision completed the research carried out for the above titled master’s thesis. I played the following part in the preparation of this thesis: guidance in research problem development, literature review, methodology, data analysis, and discussion finding.

Supervisor (Name): .....

Supervisor (Sign): .....

Date: .....

## CANDIDATE'S STATEMENT

TO WHOM IT MAY CONCERN

This is to certify that the thesis that I “**KHAT Sareat**” hereby present entitled “*Exploring Teachers and Students’ Perception on Applying Inquiry Based Learning (IBL) in Teaching and Learning in Social Science Subject at Upper Secondary School. A case study at New Generation School, Preah Sisowath (NGS PSSW) Upper Secondary School*” for the degree of Master of Education major in mentoring at New Generation Pedagogical Research Center is entirely my own work and, furthermore, that it has not been used to fulfill the requirements of any other qualification in whole or in part, at this or any other University or equivalent institution.

Signed by (the candidate): .....

Date: .....

Countersigned by the Supervisor: .....

Date: .....

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## **LIST OF ABBREVIATIONS**

MoEYS	: Ministry of Education, Youth, and Sport
IBL	: Inquiry Based-learning
NGS	: New Generation School
PSSW	: Preah Sisowath High School
NGPRC	: New Generation Pedagogical Research Center
KAPE	: Kampuchea Action to Promote Education
TLK	: Khmer Literature Teacher
TH	: History Teacher
TMC	: Moral-Civic Teacher
SPS	: Slow-Performing Students
MPS	: Moderate-Performing Students
HPS	: High- Performing Students

# CHAPTER 1: INTRODUCTION

## 1.1 Background of the Study

Education is a key to the development of every country. Due to the rapid changes of global education, it is essential that we revisit our classroom culture, reflect on what we think about our 21st century students, and ask ourselves how students want to learn. New educational environments require effective teaching and learning approaches to ensure that our students are well equipped to meet the needs and expectations of the future, there has been a clear need for training practices that encourage critical thinking, reflection, inquiring, collaboration, communication and research (Gholam, 2019). According to Khalaf and Zin (2018), the latest technological transition, study, and curriculum changes necessitate major changes in learning methods. Nowadays, students want to acquire new knowledge by doing, discussing with critical thinking, analysis, evaluation, application, and creating. They want to tell a story, to be autonomous, to interact and to work collaboratively. They want to explore and be associated with meaningful technical resources (Gholam, 2019). There are many factors involved in transferring knowledge to the learners, and one of the most important factors is teaching methodology. Hence, new teaching strategies and relevant theories have been designed and adapted from time to time to ensure a successful teaching and learning outcome. One among many useful teaching methods in this 21st century is Inquiry-Based Learning (IBL). It is a new teaching method in constructivist approach that has been applied in students-centred approach. A teaching method, which is popular and getting attraction in a developing country(O'Connell, 2014). IBL is an educational strategy in which students follow methods and practices similarly to those of professional scientists in order to construct knowledge(Keselman, 2003). Inquiry-based learning is a strategy for attempting



to engage students in taking ownership of their learning goals. It is a teaching method that begins with a question. Students construct their own knowledge as they participate in a variety of experiences that allow them to investigate answers to problems (Bibliography, 2017). Often it is viewed as an approach to solving problems and involves the application of several problem-solving skills (Gholam, 2019).

During the reform of education system in Cambodia, the models of teaching and learning cannot be changed overnight but the MoEYS has been trying hard to develop and adapt new teaching approach to ensure a better quality. As a result, NGS schools have been established and traditional teaching and learning approach has been replaced by constructivist teaching and learning to fulfill the students in the 21st century learning style, improve quality of education, produce the standard of human resource and to compete with other countries in the world.

## **1.2 Statement of the Problem**

Many teachers are worried about how they can implement the new teaching methods in their classes, as this will cause students to become anxious, bored, and unable to attend or engage in classroom activities. (Liao, 2013; Takanashi, 2010). IBL is a teaching and learning approach that focuses on matching teaching and learning to students' needs and abilities in order to increase their chances of success (Marks, 2013, cited in Gholam (2019)). Despite the fact that the IBL approach is widely used in many developed countries, the application of IBL in classrooms faces a range of major challenges in Cambodia. According to (Education, 2016), IBL required teacher to work hard, define clear objective and prepare everything beforehand including teaching material, key question, assigning group work, facilitating and giving feedback to the students' answers and recognizing the gap between results and inference. That is such a common challenge of Cambodian public teachers. In addition, Hofer and Lembens (2019)

also mention that even IBL is a good and popular approach but teacher only use it infrequently or only occasionally in their own classes. In addition, (Friesen & Scott, 2013; Khalaf & Zin, 2018) emphasized that inquiry-based learning is becoming more common in science schools, but it is still rare in the social sciences and This required further research into the role of inquiry in social groups. Many studies have been conducted on the benefits of applying IBL in the science subjects, and mathematics either, while in social science subject are still limited (Khalaf & Zin, 2018). Thus, there is a real need for a research study to explore the teacher and students' perception toward implementation of IBL in social science in Cambodia. This research study wants to figure out the effectiveness of applying IBL and some challenge factors in social science subject. Therefore, the researcher would like to investigate this IBL application in the Cambodian context, scoping only at NGS Preah Sisowath Upper secondary school (because of time limit, the experience of the school in constructivist approach and training-equipped teachers by KAPE)

### **1.3 Research Purposes**

The purpose of this research study is to verify an understanding of the principles of inquiry-based learning indicated in social science classes. Additionally, it explores the effectiveness of the inquiry-based learning method whether it brings positive and negative impacts in teaching and learning in social science subjects and the finding will provide essential information for the social science teachers related to the implementing IBL. More importantly, this study aims to identify the teachers and students' perceptions regarding the application of inquiry-based learning as well as the challenges with which they are facing while conducting this method in social science classes. Finally, yet importantly, this study motivates social science teachers to choose appropriate and useful techniques to apply in the class. Finally, to provide future researchers with some

information related to the use of IBL in social science subjects, with getting to know more about teaching and learning through this research finding.

#### **1.4 Research Objectives**

The objective of this research is to understand the implementation of Inquiry Based-learning in social science classrooms. The three specific research objectives are as follows:

1. To explore the process of application IBL in teaching social science subjects.
2. To explore teachers and students' perception toward the application of IBL in teaching and learning in social science subjects.
3. To find out teachers and students' advantages and challenges of implementing IBL in teaching and learning in social science subjects.

#### **1.5 Research Questions**

Adopting inquiry based-learning encourages students to participate in the learning process and maximizes learning (Gholam, 2019). The purpose of the following study was to gain deep insight into teachers and students' perception toward the implementation of IBL in their classrooms. It also aims at studying teachers' reflections, views, and opinions on IBL. Hence, the study focuses on the following three research questions:

1. What are the processes of IBL application in teaching social science subjects?
2. What are the Advantages and challenges of teachers and students of applying IBL methods into social science subjects?
3. What are the teachers and students' perception of applying IBL in a social science classroom?

## **1.6 Significance of the Study**

In this research study, it explores the role of IBL in the social science classrooms, and the significance of this research is expected to be useful for many relevant factors as the followings:

Firstly, to the researcher's own performance as a teacher. The result of this research study will be a guide to social science teachers who have a problem of motivating, and engaging students to involve in the classroom activities to gain the benefits and achieve a better teaching result. Furthermore, this research will help social science teachers choose an approach that is suitable and useful for the students' learning needs. Methods could also be essential in the development of classroom practices under certain teaching circumstances. When teachers use an effective method, the students will be enjoying it and they will easily understand the key concepts of the lesson. It can also assist in determining specific steps to be taken in order to resolve the correct performance of the IBL in the field of social studies in a timely and effective manner.

Secondly, the result of this research study will be essential data to push the constructivist approach in the social science field. MoEYS has been working so hard to improve education in Cambodia by reforming the education system for a better quality of education. This study will collect information and feedback related to the application of IBL in the classroom through students and teacher interviews and classroom observation to evaluate how well the social science teachers have applied the IBL approach into their classes. The findings in this study will be a small part to enable educators or policy makers to determine whether IBL, a constructivism-based teaching approach, is effective and suitable to apply in teaching social science subjects or not.

Thirdly, within the application of IBL in the classroom, the students will gain benefits and experiences through this method by questioning (identify the key problem)

self-learning, do more researching to get information to increase and develop knowledge, having good communication and spiritual team work as well as giving the students self-confidence and motivation. This would enable teachers to feel more confident and comfortable in applying IBL techniques in their teaching classes as well as making their students' enjoyment in learning. In addition, the result of this study will signify a key to all NGS social sciences teachers in Preah Sisowath high school teachers that could adapt the useful techniques to apply in the real social sciences classes. By implementing IBL in social science, teachers gain a good teaching methodology to improve their teaching ability, classroom activities, engagement, and draw students' attention to involve the class. Moreover, the finding would foster to improve and strengthen the teachers and students 'knowledge toward IBL.

Finally, yet importantly, it could be used to show other educators how to apply this teaching technique correctly and efficiently in order to improve educational quality. Finally, the results from this study will be a secondary data for other studies in Cambodia. Yet, there has not been a lot of research done in Cambodia on IBL in the social science subjects.

### **1.7 Operational Definition of Key Terms**

- **Inquiry-based learning (IBL)** is an instructional practice where students explore content by posing, investigating, and answering questions. Students are at the center of the learning experience and take ownership of their own learning. They often work independently and in small collaborative groups (Caswell, 2017)
- **Social science subjects:** The six subjects from the social science field in the Cambodian K12 curriculum: Khmer literature, History, Geography, Moral and civic, Home Economic and English subjects.

- **Students learning levels:** Refer to the result of students based on one subject only from each of the three subjects that participate in this study (Khmer literature, Moral & Civic, History). It does not refer to the result of the students from calculating by combining from all subjects such as monthly exam or semester exam result.

## **CHAPTER 2: LITERATURE REVIEW**

This chapter is designed to review the overview of IBL and some sample sources related to this topic. The researcher is going to review and discuss some main themes, such as 1). The history of Inquiry based Learning (IBL), 2) definition of inquiry- based learning (IBL), 3) Benefits of IBL, 4). The challenges of applying IBL in social science subject, 5). Inquiry Based Learning (IBL) in social science class. After that, the researcher will review the previous study that is relevant to the teacher and students' perception toward implementing IBL in the Social science classroom.

### **2.1 History of Inquiry Based Learning (IBL)**

It is important to acknowledge the place of inquiry in the historical context, both in terms of the long Western tradition of knowledge creation and research and in terms of ways, traditional approaches to education have hindered efforts to organize education for these purpose (Friesen & Scott, 2013). The speed change of education required new teaching approach and to push education jurisdictions around the world to change the way they think and organize education. A good teacher in this 21st century and in the digital era are required many components of quality, to understand about the students context, their learning style and keep learning with them (Vicheanon & Vicheka, 2021). Regarding to, Friesen and Scott (2013), Inquiry-Based Learning has a long tradition in the western world. This spirit of inquiry has a strong historical background in ancient Greece and the questioning method used by Socrates to engage in dialog with his participants. Furthermore, in the Middle Ages and the Renaissance, middle of the 13th century, the term "inquiry" came from the Latin word "inquirers", which literally means, "Seek." The spirit of seeking answers to the mysteries of the universe, based on observation, experimentation, and empiric verification, gained momentum in Northern Italy in the early 1500s. Moreover, addressed how

inspirational teachers guide student thinking processes and personal reflection in order to influence positive learning outcomes; these have become basic elements of inquiry Based-learning, (Dewey, 1910-1911). Therefore, three notable educators' achievements such as Lev Vygotsky, Jean Piaget, and Jerome Bruner are intertwined with Dewey's life fragments (Herman & Pinard, 2015).

## **2.2 Definition of Inquiry based Learning (IBL)**

IBL stands for Inquiry based-learning which is a method in constructivist approach that promotes students' learning by doing, questioning, investigating, and making conclusions. IBL is rooted in constructivism in which learners learn theory, discuss content by asking, build their own knowledge and meaning, researching, answering questions and state that human beings form their own personal experience (Caswell, 2017; Tamim, 2013). According to Khalaf and Zin (2018), they have emphasized that Inquiry-based learning integrates both theory and experience. Similarly, Inquiry-Based Learning is an instructional approach in which students follow similar approaches and practices to those of trained scientists to develop expertise, (Keselman, 2003; Leijen, Mäeots, Sarapuu, & Pedaste, 2012). It can be defined as a process of discovering new causal relations, with the learner formulating hypotheses and testing them by conducting experiments or making observations. In addition, IBL refers to a range of learning approaches based on self-directed research processes. Students conduct investigations that are designed to enable them to actively explore issues and problems within their discipline. IBL can operate as a design principle for entire modules and programs, or can be implemented as discrete activities within a lecture-based module (Watson, 2008).

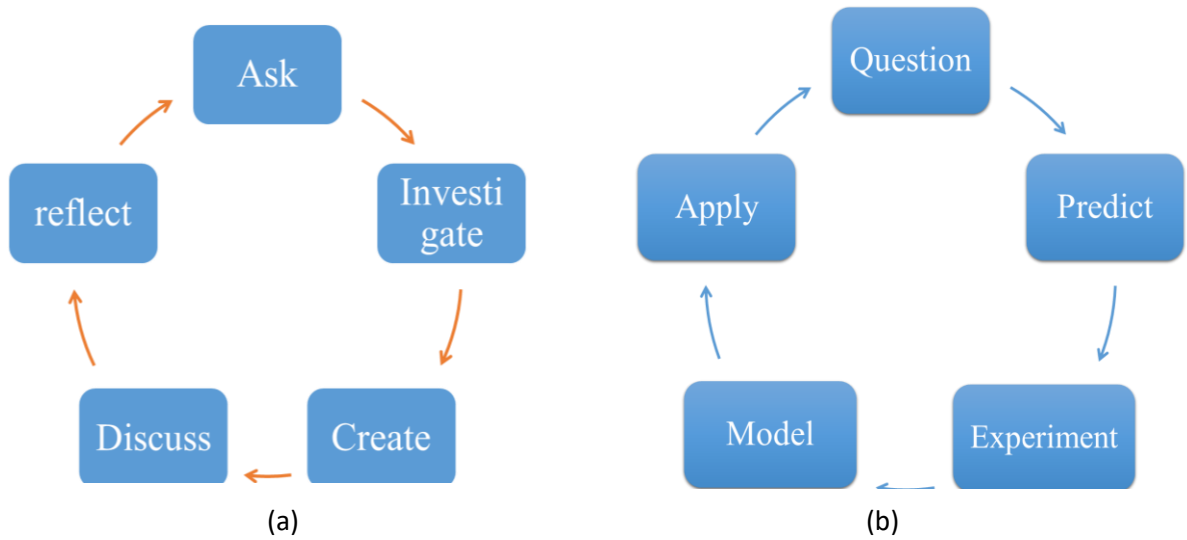
## **2.3 The application IBL in the Classroom**

Inquiry learning is not about memorizing facts; rather, it is about posing questions and determining appropriate solutions to problems and issues. Inquiry can be a complicated



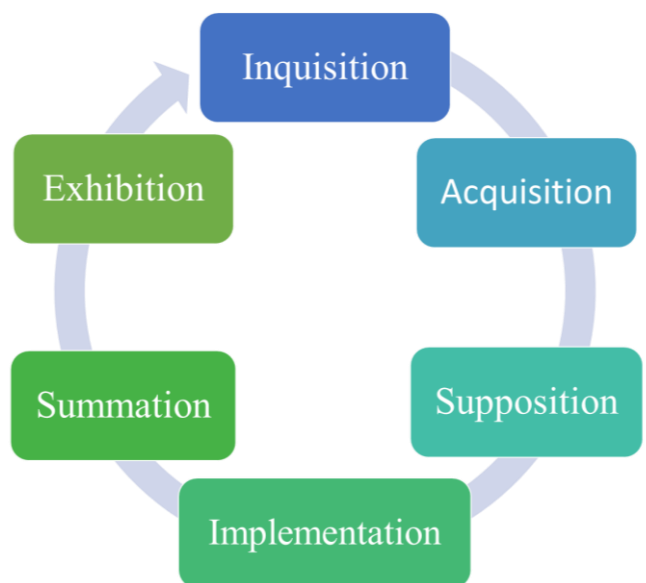
task, which necessitates dedicated instructional design and support to ensure that students experience the thrill of solving a task or problem on their own. Inquiry learning environments that are thoughtfully designed can help students transform information and data into useful knowledge. Based on John Dewey’s philosophy that IBL begins with the curiosity of learners, several authors (White and Frederiksen, 1998, Bruce and Bishop, 2002, cited in Mikroyannidis et al. (2013) suggest a 5-steps cycle of inquiry.

Figure1: Five-step models by (a) Bruce & Bishop (2002) and (b) White & Frederiksen (1998)



These steps comprise a continuous cycle for asking questions and making predictions; investigating solutions through experiments; creating new knowledge and models; applying/discussing discoveries and experiences; and reflecting on newfound knowledge and/or starting new questions. Not far differences approach proposes by Llewellyn (2004) a 6-steps of

Figure 2: Six-step model by Llewellyn (2004)



inquiry cycle that includes generating a question, brainstorming, formulating a hypothesis deciding on a plan of action and conducting the investigation gathering data for appropriate conclusions, and communicating the findings.

➤ Similarly, Margus Pedaste et al. (2015) has provide the specific learning processes that learners engage in during

Figure3:7-step model by Margus Pedaste et al. (2015)

Inquiry learning are as follows:

- Starting from students investigate and start to identify the problems.
- Students start to formulate the question
- After that, they must formulate a hypothesis, which should be the answer to the research questions.
- Next stage is that students must plan an experiment to determine the validity of their hypothesis.
- Following that, students analyze the information in a figure to discover a link between it and the process under investigative process.
- Finally, Students draw a conclusion and presents the result to the class.



### 2.3.1 The Levels of Inquiry Based- Learning (IBL)

Aiming to enhance critical thinking and problem-solving skills, the IBL approach can be implemented at different levels (Duran & Dökme, 2016). Different authors have developed different levels of IBL. Students may adapt their learning experience and understanding to the learning that they engage in because of the difference in position between the teacher and the student in carrying out learning based on levels of inquiry. The higher the level of enquiry, the more active students are in learning; the lower the level of

enquiry, the higher the role of teachers in learning (Hardianti & Kuswanto, 2017). In this study, we will refer only two differences of IBL's level. a first one is from (Fradd et al., 2001) and the second one from (Gholam, 2019). The higher level of IBL is the higher level of students' work performance independently.

Based on IBL classification provided by Fradd et al. (2001), There are six levels which is complicated but at the same time it is also more specific and useful when thinking about IBL lesson.

Table 1: *IBL Classification Provided by (Fradd et al,2001)*

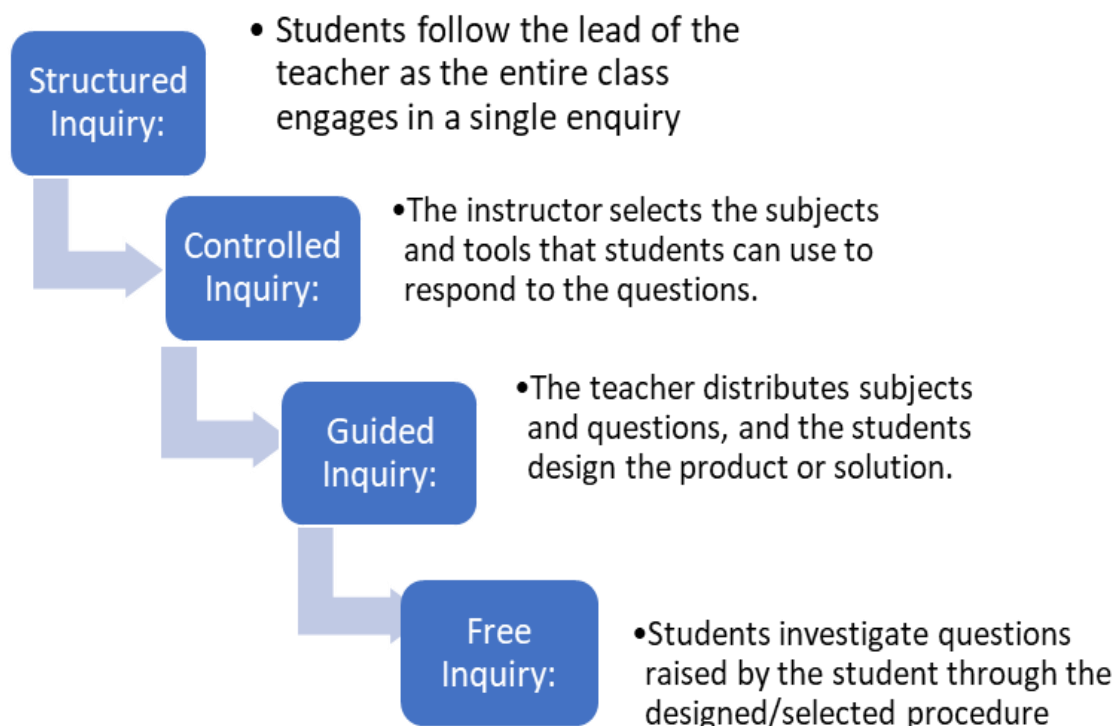
<b>Fradd et al. (2001), Inquiry level in IBL lessons)</b>							
Inquiry levels	Questioning	Planning	Implementing Concluding	Carrying Draw Out plan Conclusion	Analyze data	Reporting	Applying
0	Teacher	Teacher	Teacher	Teacher	Teacher	Teacher	Teacher
1	Teacher	Teacher	Teacher/ Students	Teacher	Teacher	Students	Teacher
2	Teacher	Teacher	Students	Teacher/ Students	Teacher/ Students	Students	Teacher
3	Teacher	Teacher/ Students	Students	Students	Students	Students	Students
4	Teacher/ Students	Students	Students	Students	Students	Students	Students
5	Students	Students	Students	Students	Students	Students	Students

Educators often devise questions that can be posed to students; however, teachers often use a four-step method of inquiry (Structured, Controlled Inquiry, Guided Inquiry, Free Inquiry) in which each examination begins with the student, rather than just the instructor. Based on Gholam (2019) broke down IBL into four levels depends on the quantity of

information and instructions given by the teacher to the learner. Examines the distinctions between four different forms of student inquiry. The four levels of inquiry are:

- **Structured Inquiry:** Students follow the lead of the teacher as the entire class engages in a single enquiry.
- **Controlled Inquiry:** The instructor selects the subjects and tools that students can use to respond to the questions.
- **Guided Inquiry:** The teacher distributes subjects and questions, and the students design the product or solution.
- **Free/Open Inquiry:** Students investigate questions raised by the student through the designed/selected procedure.

Figure 4: *IBL classification provided by Gholam (2019)*



#### 2.4 Benefits of Inquiry Based-Learning (IBL)

Our society has evolved dramatically over the years. Hence, we cannot teach them in the same manner as we taught yesterday's students. It is critical that we revisit our classroom

atmosphere, reflect on what we believe about our twenty-first-century students, and consider how students want to learn. Today's students want to learn new things by doing. They want to think, analyze, assess, apply, and create. Our students need to be involved in the learning process (Gholam, 2019). The primary objective of inquiry-based learning is to include students in a true scientific discovery process (Margus Pedaste et al., 2015). Moreover, So (2018) define that designed IBL procedure encourages students to learn about the use of effective tools such as a quiz, workbook and demonstration set-up. In addition Guido (2017) identifies seven benefits of IBL : (1) reinforces curriculum content, 2). warms up the brain for learning, 3). promotes a deeper understanding of the content, 4). helps make learning rewarding, 5). builds initiative and self- direction, 6). works in almost any classroom, and 7). offers differentiated instruction. In addition, Watson (2008), emphasized that IBL is good and helpful to some area such as 1) IBL promote “students learning by doing” in line with indisputable common sense pedagogy. 2) IBL is suitable for the transferable skill. The students are required to work collaboratively to identify how to solve a problem, gain research skills, and trade-off capacity (Avsec & Kocijancic, 2016). 3) Open to varied learning styles: IBL also improves student engagement, motivation, and self-confidence(Caswell, 2017). 4) Engaging students as active learners: The inquiry-based model combines both learning and practice (Khalaf & Zin, 2018). Similarly, Gholam (2019) IBL allows students to participate in the learning process and maximizes learning. 5) Linking research and teaching: IBL is an educational strategy in which students follow methods and practices similarly to those of professional scientists in order to construct knowledge (Keselman, 2003). It refers to a wild rang of research approach based on direct- self research process (PRIMAS, 2011). Whereas, PRIMAS (2011)The IBL method is more successful at developing critical thinking skills in students(Gholam, 2019). Furthers more, Sockalingam, Rotgans, and Schmidt (2011) has state when students are given the opportunity to work on a

problem, they gain new knowledge and further expand and deepen their current understanding and students take responsibility for learning as they explore and investigate. More importantly, Bayram, Oskay, Erdem, Özgür, and Şen (2013) indicated that IBL promote motivation in the classroom because they have a variety of options, have the opportunity to practice self-control, and conduct investigations that they are interested in. Additionally, IBL emphasizes constructive participation and the learner's obligation for acquiring new knowledge. (Alfieri et al 2011 cited in M. Pedaste and Sarapuu (2006), refer to the benefits of IBL in the classroom by explaining that, “allowing students to interact with materials, models, manipulate variables, explore phenomena, and attempt to apply principles affords them with opportunities to notice patterns, discover their underlying casualties, and learn in ways that are seemingly more robust” (p. 3). Moreover, Herman and Pinard (2015) share his research finding that in spite of uncertain outcomes, IBL fosters high student motivation by sustaining students' needs while engaging relationships and engendering interest in exploration learning. The strong improvements in other facets of student participation, such as increased comprehension, more enjoyable learning, a stronger sense of accomplishment, and improved readiness for lifelong learning, are another important advantage of IBL for teachers (Spronken-Smith, Bullard, Ray, Roberts, & Keiffer, 2014).

## **2.5 Issues and Challenges of Inquiry Based Learning (IBL)**

Despite of the benefits, IBL is not safe from criticisms, obstacle and problems that act as barrier for a wider uptake of IBL. According to the authors, IBL is one of the teaching methods that has been recognized and suggested as a useful tool in the science classroom, whereas, in some fields of study, some teachers have misconceptions and the recent trend in teaching and learning science is difficult to distinguish between types IBL due to research (Eltanahy & Forawi, 2019; Watson, 2008). At the same way, Friesen and Scott (2013) stressed that not all research on alternative approaches to research learning has been

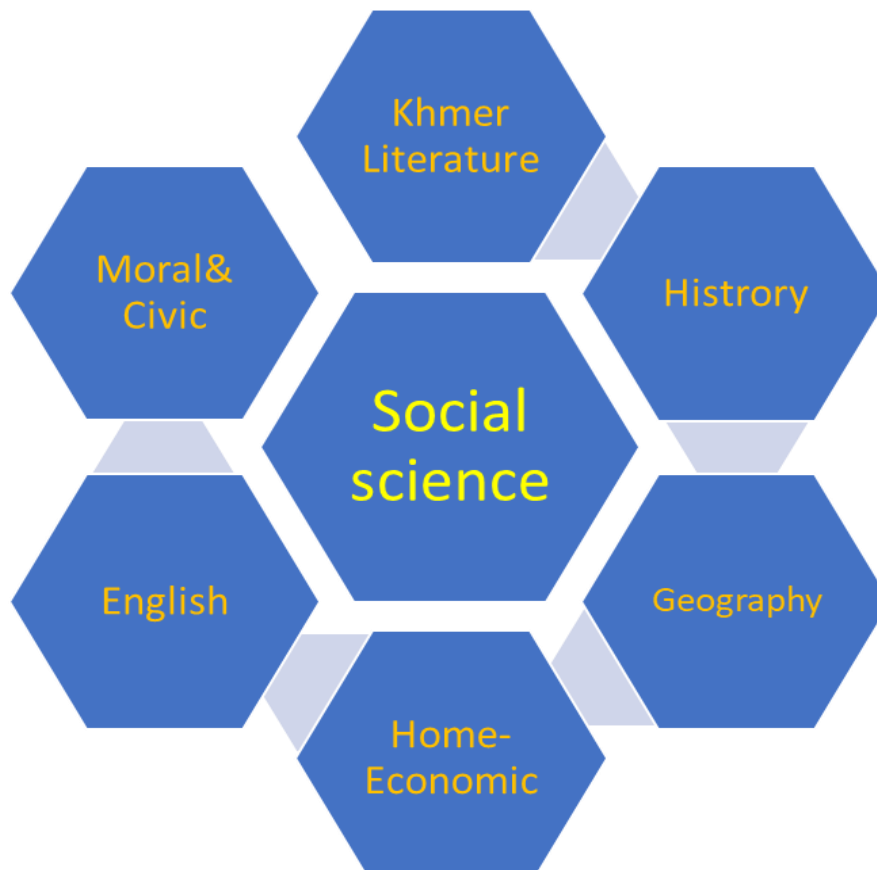
positive. These study results do not verify that research-based approaches are not effective, but they do support the conclusion that the investigation requires some instructional support. Moreover, IBL is a technique that implements a student-centered approach. Hence, In Cambodian school context it could meet serious challenges including large class sizes, long conventional desks, and a lack of materials. It is difficult for teachers to allocate group work or offer students the opportunity to participate in a variety of classroom activities, as well as a low level of teacher ability, are all examples of approaches(Dy, 2004; Pidor, 2012). Moreover, PRIMAS (2011)and Hofer and Lembens (2019) has raised up three specific type that challenges in applying IBL in the class. 1) school systems: the Schools' lack of ability to apply inquiry based learning as a learning approach(Khalaf & Zin, 2018). 2) Lack of adequate curricula or systems for practical application of inquiry-based learning. 3) Teachers were unable to attend required seminars or attend training courses for the implementation of the inquiry-based learning process. However, Hofer and Lembens (2019), have made conclusion that, IBL was regarded as a difficult and time-consuming instructional approach, but they agreed that the positive impact on students' engagement, learning, and attitudes outweighed the extra effort.

## **2.6 Inquiry Based Learning (IBL) in social science class**

Due to the tremendous change in global education, the Cambodia education system has been reformed. To strengthen the students' capacity, MoEYS divided the all the subject into two main fields, science, and social science. After the students' finish- secondary school, they can choose to go to the social or social science based on their preferences, talents, and capacity. However, both fields play an important role and require a person to be a good and highly qualified citizen. Social science or we can call in other way is "Social study" refer to the integrated study of humanities and social sciences to foster civic competence. The primary objective of social studies is to help students develop the ability to

make informed and reasoned decisions for the common benefit as citizens of a multicultural, democratic society in an interdependent world (NCSS, 2010). In Cambodia context, Social Science field contains six subjects such as the following.

Figure 5: *The six- subjects in social science*



In teaching context, Khalaf and Zin (2018) stressed that inquiry-based learning met the need for students to be actively involved in the learning process and more common in science classes, but it is still restricted in the social sciences. Teachers believe about the concept of IBL in history, three discerned. 1) IBL was reduced to reading and understanding. Teachers expected their students to be able to process additional knowledge on the subject of their courses on their own, and IBL was mainly used to increase students' content awareness (Voet & Wever, 2016). 2) Teachers emphasized that IBL should primarily



concentrate on comparing and objectively assessing information sources so that students learn how to evaluate the reliability of sources. 3) IBL should be focused on probing or learning to deal with a problem by asking questions, analyzing data, and forming arguments. Whereas, in geography class, Spronken-Smith et al. (2014) assume that the use of IBL is likely to be widespread in the geography curriculum, even though educators may not call it such. Teachers may use puzzling to spark debate and discussion among learners in lectures or laboratories, as they have presented a list of cases of the use of IBL in geography on a small but useful scale.

## **CHAPTER 3: RESEARCH METHODOLOGY**

In this chapter, the following sections will go through the research design in detail, including the research design, sample size and sampling method, research instrument, data collection process, data analysis, scope, ethical considerations, and finally, limitations and discussion of the study that may arise during the study's execution.

### **3.1 Research Design**

To uncover the social science teachers' perception and challenges in implementation of IBL in the classroom, to explore the belief and opinion regarding IBL, and examine their personal reflections on the reasons they favor the use of IBL in the classroom, a qualitative research design has been adopted. By conducting a case study to investigate the implementation of IBL in social science classes. According to Mack, Woodsong, M.Macqueen, Guest, and Namey (2005), the strength of qualitative research is highlighted by the ability to provide "complex textual descriptions of how people experience a given research issue". It provides information about the "human" Side of the issue – that is, the often-conflicting behaviors, beliefs, opinions, emotions, and interests of individuals. Hence, this study approach is appropriate for the examination of the perceptions of social science teachers regarding the use of IBL in the classroom.

### **3.2 Sample Size and Sampling Technique**

The purposive sampling design is employed in this research study because the researcher intended to explore the teachers and students' perception of applying IBL in social science classroom. According to Mack et al. (2005), Purposive sampling, which often selects groups of individuals, is based on a preset framework that is related to specific study questions, and the sample size is determined by the available resources and time. However,

because of the COVID-19 pandemic, the school has been closed and the students started to study by online classes. Hence, it is hard for the researcher to choose the students to participate in this study and some of the students they felt not confident to participate in this study. Therefore, the researcher decided to use both purposive sampling and snowball sampling to select the students to participate in this study. This study will be conducted at New Generation School (NGS), Preah Sisowath High School (PSSW). The researcher decided to conduct the study in NGS School because this school is a new education reform legitimated in 2015 by MoEYS that fosters to implementing constructivist approach in the classes. Moreover, all NGS teachers required to attend in-service training to learn about appropriate methodologies for improving critical and creative thinking skills, as well as constructivist teaching and learning approach. In addition, the use of technology in the classroom to ensure the quality of teachers to reach the school objective, learning results and prepare students for employment of the twenty-first century (Donaher & Wu, 2020). Hence, NGS School is the best choice for this study comparing to the other normal public school. The six teachers from the social science field at NGS Preah Sisowath were selected as participants in this study by using purposive sampling techniques. Two teachers from each of the three following social sciences subjects, Khmer Literature, History, Moral-Civic, are selected to involve in this study. The researcher chose teachers from each three social subjects, wanting to explore their perception, the implementing, and define the challenges toward the application of IBL in the social study classes. At the same time, the researcher also employed both purposive, and snowball sampling techniques to select 9 students from the three different levels of learning (3 from Student's poor performance (SMP), 3 from Student's moderate performance (SMP) and 3 from Student's high performance (SMP)) at grade tenth and grade eleventh only to be participants in this study. The researcher selects the students from these three different levels of learning because the researcher wants to explore and compare about the

perception, overview, the process and the challenges of implementing IBL in order to compare and reduce biases. To select the right levels of students to participate in this study, the researcher had discussed and asked some help from the homeroom teacher. It is the best way to handle people, and potential recruitment roadblocks. Moreover, the reason that the researcher decided to select the students from grade 10 and 11 only because the researcher does not want to disturb the students from Grade 12 due to their taking the 12th-grade examination. On the other hand, putting students from different levels in a focus group may lead to the finding of study bias due to students from different levels of education, who will have different levels of knowledge, thinking and perspective. According to the mentioned reason above, the researcher only selected the 6 teachers from each three social science subjects and 9 students from NGS, PSSW by excluding other normal schools because NGS is a modern school that has been applying the 21st century skills, therefore, teachers and students are familiar with modern teaching methodologies.

Table2: *Sampling selection of teachers*

Teacher	Khmer Literature Teachers	History Teachers	Moral-Civic Teachers	Total
Number of teachers	2	2	2	6

Notwithstanding, the researcher had interviewed only five teachers from each of the three subjects. At NGS- PSSW there are only two history teachers. I have sent the consent form and contact for an interview but only one teacher had participated in this study due to another one history teacher having a problem with his health condition. He could not get involved. In this case, I had tried to find another teacher for replacement by talking and asked for some suggestions from my supervisor to interview another teacher from Home-Economic. Unfortunately, he also had a health issue that prevented me from being

interviewed. Finally, because of the time constrained and it hard to ask other teachers for replacement (At that time, the teacher at NGS- PSSW was very busy with the online teaching and create video E-learning for both themselves and for the MoEYS) so I decided to stop interview from five teachers ‘participants only.

Table3: *The teachers participated in the study*

Teachers	Khmer Teachers	Literature	History Teachers	Moral-Civic Teachers	Total
Number of teachers	2		1	2	5

Table4: *The students participated in the study*

Students	Slow- Performing Students (SPS)	Moderate- Performing Students (MPS)	High- Performing Students (HPS)	Total
Number of students	3	3	3	9

### 3.3 Research Instrument

This section will show details about the tools that the researcher used to collect data. The used in-depth-interview to ensure that the data collected from this study is more reliable than the data from a single source. According to Mack et al. (2005), The in-depth interview is a method for eliciting a detailed image of the participant's viewpoint on the research subject. More important, In order to obtain optimal answers from participants, the researcher must

design questions in such a way that they keep participants focused on their responses to the questions and be prepared with follow-up questions or prompts (TurnerIII, 2010).

### **3.3.1: Online interview (Zoom cloud)**

As this study employed qualitative design, in order to collect reliable and valid data, the semi-structured questionnaires were designed along with online interview (Via Zoom cloud) interviews, that is, the in-depth interviews were conducted individually for the teachers. In the beginning, the researcher planned to go to school and have a face-to-face interview with the teachers but again, because of the Covid -19 pandemic required everyone to keep social distances, so the researcher decided to use online interview instead of face-to-face. In the same way, the focus group for the students has also changed. In the beginning, the researcher planned to use a focus group to interview the students but as mentioned above the Covid-19 is chaotic. It is hard to do the focused group due to the students being very busy with their online classes and the time is not available for three of them to meet at the same time. More importantly, because of the online interview, it was hard for the researcher to collect triangle information from them; hence, the researcher decided to change from focus group to individual interview. The teachers' interview will take around 30-40 minutes and the student's interview will take around 25-30 minutes. The teachers' interview took more time than the students' because the researcher wanted to get deep insight about the teachers' teaching process, perceptions, and the challenges that they are faced with and elicited some solutions that they have used, In contrast, the students just rely on what they have known and their opinion only. The interviews were recorded by using Zoom 'video record with consent of the participants. To maintain ethical concern, the informed consent was done between the participants and researcher in an agreeable manner.

### **3.4 Data Collection Procedure**

In this segment, the researcher designed to fully describe the data collection process from two important sources (teachers and students) by using in-depth interviews. Classroom observations are excluded due to the Covid-19 pandemic (The school was closed). At first, the researcher had interviewed five teachers with open-ended questions and then nine students as mentioned above.

#### **3.4.1: Online interview (Zoom Cloud)**

This piece was designed to fully describe the process of data collection. Firstly, the researcher contacted the school principal by messaging through Telegram and brought along a letter of permission from the director of NGPRC to the school principal asking permission to collect the data by explaining about the nature and purpose of the study and suggesting the participants to be involved as samples. Next, the researcher directed-contacts the participants through phone, Telegram, and other social media to introduce the purpose and objective of the study and selecting a meeting date for the interview with the teachers. At the end of the interview, the researcher had asked some help from the teacher to introduce the three students from different levels of learning to get involved in this study. The researcher had employed in-depth interviews to collect information from each five teachers (Khmer Literature teachers, Moral-Civic Teachers and History Teachers) and nine students from three different types of learning individually. More importantly, after having finished in-depth interviews from both teachers and students, the researcher also asked participants for further contact information in cases needed.

#### **3.5 Data Analysis**

In this section, the researcher shows the process of data analysis. According to Bryne (2001), qualitative research results in large amounts of contextual data received from the detailed observation or interviews of those research participants. The researcher gathered

primary data through semi-structured interviews and went through a multi-stage process of arranging, categorizing, synthesizing, analyzing, and interpreting the information. On the other hand, all the data was coding and analyzed carefully to respond to the research questions. In particular, the researcher also quoted some responses from the participants, which were interesting, from the interview transcripts directly into finding sections.

### **3.6 Ethical Considerations**

In order to conduct this study effectively and productivity, the researcher put great attention on confidentiality and anonymity. At the beginning, the researcher designed a letter of permission asking approval from the New Generation Pedagogical Research Center (NGPRC) principal. After approval, this letter will continuously be sent to the NGS school principal to accept for data collection. Then, informed consent forms (Khmer version only) were used to seek the permission from the school principal and ask permission from each participant (Khmer literature teachers, Moral-civic teachers, and history teachers) for interview permission. At the same time, the researcher clearly identified the purpose of this study in a way that was easy for participants to understand the purpose of the interview and reach agreement. The participants were allowed to repeat the questions repeatedly to make sure they are clear and understand the question well. Moreover, they also can skip or reject if they feel sensitive or not comfortable to answer. More importantly, before or within the interview, the researcher explained very clearly to them whatever they said they were safe (no threat, no failure of their examination because of their comments, nor would they lose any marks and so on). To keep accuracy and truthfulness, video records and written notes were asked for permission to conduct, and all that data was kept confidentially. In addition, Interviews were conducted by Zoom cloud based on the time that the participants are available to ensure the interview process does not disturb their study time.



### 3.7 Scope and Limitations

The plan of this study is truly conducted with all six teachers from social science subjects but in the real situation, we could get interviews from only five teachers only along with the nine students at New Generation School, Preah Sisowath High School (NGS, PSSW). The following limitations of the study are described as follows for additional researchers or educators to be informed:

1. The plan of this study is to collect information from six teachers. However, due to the teachers' health condition, the result from this study is to cover only five social science teachers and nine students from grade 10<sup>th</sup> and grade 11<sup>th</sup> that come up with different levels of academic performance at NGS PSSW excluding the other NGS brands and public schools.

2. Again, in the beginning, the researcher planned to conduct the classroom observation to get deeper insight into the process of applying IBL in the class. Yet, during the Covid-19 pandemic, the school were closed, so the researcher could not conduct the classroom observation through online class. It was hard to observe and measure the students' performance to get information due to not seeing the students do the activities, some students' cameras were closed and so on and so forth. In particular, it was different contexts. Hence, at the end the researcher decided to cancel the classroom observation.

3. The time was so limited for the study that it might not be enough for the researcher to find the deep effectiveness of the IBL method in social science subjects in just only eight weeks. Moreover, the researcher should use experimental study to compare the results from one-step to another.

4. Next, this study had been used with the small sizes of participants (five participants from differences three subjects in social science) not including other teachers in this field, and students that come from grade 10<sup>th</sup> and grade 11<sup>th</sup> only were selected to be

interviewed. For the students from grade 12<sup>th</sup>, the researcher did not select them because the researcher does not want to disturb their time because they may be very busy and work hard for their Diploma II exam.

5. There is also the potential for sampling bias since the researcher uses snowball and purposeful sampling methods to select respondents that only have a collection of response criteria. In addition, the study just mentioned the process, perception, and the challenges of implementing IBL in social science classrooms as well as some possible solutions that they used to deal with it.

6. Besides time and budget constraints, another reason was all schools closing regardless of Covid-19 pandemics. That was causing a planned classroom observation has been cancelled and face-to-face interview moved to online interview.

Finally, because of the time constraints, budget, and the Covid-19 pandemic, the study included only three among six subjects in social sciences only (Khmer literature, History and Moral and Civic) while another three subjects (Home Economic, Geography and English) are supposed to be similar with it. So, the further study should consider to selecting all subjects in social science with many participants to get deep insight about the positive and negative impacts of IBL in social science subjects.

## CHAPTER 4: RESEARCH FINDING

In this chapter, the findings from the interviews related to the nine students and five teachers' definition, application, the advantage and challenges of IBL in their actual settings are examined, so that we can gain insight into how their goals and realizations are achieved. The finding showed that the teachers have quite similar definitions and perceptions about IBL. At the same time, the teachers also pointed out advantages and difficulties that they have faced along with possible solutions. Whereas, the students are also responses similarly related to the advantages, challenges with some solution as well as their perception toward IBL method.

### 4.1 Demographic Information

Table5: *Students Demographic Information*

Demographic Information: Students				
participants	Grade	Codes	Age	Learning Performance
Student 1	10	SPS: S1	16	Slow-Performing Students
Student 2	10	MPS: S2	16	Moderate-Performing Students
Student 3	10	HPS: S3	16	High-Performing Students
Student 4	10	MPS: S4	16	Moderate-Performing Students
Student 5	11	SPS: S5	17	Slow-Performing Students
Student 6	11	HPS: S6	17	High-Performing Students
Student 7	11	SPS: S7	17	Slow-Performing Students
Student 8	11	MPS: S8	17	Moderate-Performing Students
Student 9	11	HPS: S9	17	High-Performing Students

Table 5: *Teachers' demographic information*

Demographic Information: Teachers					
Subjects	Khmer Literature		Moral & Civic		History
	participants 1	participants 2	participants 1	participants 2	participants 1
Codes	KLT1	KLT2	M&C1	M&C2	HT1
Experiences of teaching	22 years	5 years	7years	6 years	5 years
Grades	11, 11,12	10, 11, 12	10,11, 12	9,10, 11	10,11,12

## 4.2 The Process of IBL in Social Science Subjects

Responses to the key research question number one that stated, “**What are the processes of IBL application in teaching social science subjects?**” Based on the answers from both teachers and students who participate in this study shown the teachers ‘definition of IBL, the level of IBL, the Process of IBL in social science subjects, the role of teachers and students in the learning process as well as the positive while applying and after applying IBL as the following:

### 4.2.1 Teachers and Students Background’s Knowledge

#### A) Teachers’ definitions of IBL

Most of teachers participants define term ‘IBL in similar way as following:

*IBL is a teaching methodology that the students play an important role in learning. They have to identify the key issues, work in the group discussion and research to find the answer or solution to deal with the key question. While the teacher can help them by proposing the key questions or giving the clues to the group and facilitating each group when they have wonder or in need, [HT 1].*

The two out of five teachers additionally, define the term of IBL

*It is a teaching method that promotes high critical thinking to the students by the teacher giving a big thinking question and let the students think, to identify the problem, analyze, and research to find the answers or solution for those problems, [MCT 2].*

### **B) The Levels of IBL**

All participants mentioned that IBL have its' levels. However, three among them stated that IBL has three levels. While the other two teachers said that they forgot about the levels, they remember that, it is related to the Bloom' taxonomy's theory.

*There are three levels, Structure inquiry, guided inquiry and open-ended inquiry. Levels 1 and 2 are not quite different. The teacher gives the key question or the clues, facilitates and the students research, discuss and do the presentation to the whole class whereas level 3 is the highest level. The students have to identify the key question, find the answers or solution and make a conclusion by themselves, [MC 1].*

### **C) The Process of IBL in Social Sciences Classes**

Inquiry-based learning is a type of active learning that begins with the presentation of questions, problems, or scenarios. A method helps students to gain knowledge through the questions. The students may work in-group or individual based on the teacher's arrangement or in a circumstance. It may start with a key question and follow with some sub-questions that verify or lead to the answers to the key question. Based on the responses from teachers 'participants in this study, the IBL process is as the following:

- 1) The teacher must set up a clear or specific learning objective.

- 2) The teacher can give the clues, show the picture or any other things to the students and let them identify the key question, or sometimes the teacher gives the key question directly to the students.
- 3) After identifying the key question, the teacher divides them into groups or work they individually to collect information, through discussing, reading, researching, watching, or analyzing the events.
- 4) Next, after analyzing, the students start to make a conclusion in response to the key question.
- 5) Finally, they give a presentation to the whole class, and explain and answer the classmates' questions. Meanwhile, the teacher plays the role as a facilitator when the students are in need. Here is an example of the teachers' participant regarding to the application of IBL in the social sciences class:

*For instance, I want my students to know about the elephant. Hence, I divide students into groups and give the questions such as, group 1: observe about the skin the hair of elephant. Group 2: observe about the legs, high, weight. Group 3: observe about the head and ears. Groups 4: observe about the benefit of the elephants ..., and so on. After they have observed, they start to present their answer to the class and after that they make a conclusion "what is the elephant look like" to the whole class, [KLT1].*

#### **D) The Role of Teachers**

The application of IBL, three among five teachers stated that the role of teachers is to propose the key issue or provide the key question to the students while another two they did not mention about it. In addition, all the five teachers who participated in this research

responded that the role of teachers in IBL method is the facilitator. The teachers have to move around to support students when they are working in groups. Teachers must observe and give further explanation when they have questions or do not understand. Three of participants remarked that teachers must prepare material and supporting material for research including finding relevant sources that support the lesson's meaning. Two teachers emphasized their time management role:

*Give the key question to the students' in-group, after that we facilitate and observe the students and help the students in the group by asking questions or providing future explanations. At the same time, teachers have to prepare supporting materials, find the picture for teach, [KLT 2].*

#### **E) The Students' Role**

All the five teacher participants described the students' role. They show that IBL is a methodology in which the students learn by doing. Students must work in the group, discuss, read, and research for more information inside - outside the books from different sources to support their answers. Furthermore, the students must present what they have found or share their answers to the whole class. In addition, they also need to answer the questions, explained on their responsibility on their part to their classmates too.

#### **4.2.2 Students**

Based on the answers from all the students' participants, all participants experienced learning by using the IBL method with their social science subjects' teachers frequently. Through this method, the students play a very important role in identifying the key problems or the key concept and finding solutions while teachers just help to facilitate and support

when they are in need. In particular, each student has their own role in the group and their role depends on the time. Sometimes teachers set the role for each of them but frequently, their teachers just divide them into groups or sometimes they select the team leader for each group and then give the task while the students themselves share the role to take responsibility. One student explained, *“it depends on the time. Sometimes teachers choose the team leader but the role in the group; we are the ones to choose. We have each other to discuss and research to find the answers”* [HPS: S6].

In addition, learning through this process, all the students’ participants share that, everyone has their own role. They must discuss and share ideas in the group, research from further information from different sources to support their ideas or to respond to the key question and after that, do the presentation or share information to the whole class. Moreover, four of them also mention that they must prepare or note the answer from each member for the presentation. Meanwhile, two students raised up about whether they must form the key question or identify the main point that covers the topic. In the same way, one member states that the team members have to explain to each other if they do not understand. Therefore, the teacher just gives the question, facilitates by walking around and provides further explanation when the students need it and the students play the role as the researcher, researching to find information to support the answers. As one student explained, *“most of the time, teachers just give the question and give some explanation and the rest are the students who research and discuss to find the answers by themselves”* [MPS: S8].

#### **4.3 Advantages and Challenges of Applying IBL in Social Science Subjects**

Responses to the key research question number three that stated, **“What are the advantages and challenges of teachers and students of applying IBL methods into Social science subjects?”** Based on the answers from both teachers and students who participated in this study shown that, there are some advantages and challenges that both



teachers and students are facing with before applying IBL, while applying IBL and after applying IBL in the classroom and they provide some solution that they used to deal with all the challenges too.

### **4.3.1 The advantage of applying IBL method**

#### **4.3.1.1 While applying IBL**

While applying IBL: All teachers who are participating in this study have noticed that both students and teachers themselves are improved in positive aspects as the following.

##### **A. Teachers:**

a) **The teacher:** indicated that, while applying IBL in the class they must upgrade and increase their knowledge from time to time by delegating the task to the students. On the other hand, three of the teachers have mentioned that they can gain a new teaching methodology, facilitating skills as well as classroom management. As the Moral-Civic teacher explained, *“while we give the work to the students, the teacher, themselves, also have to research, to find new information in order to facilitate and answer and correct the students’ and could add more comments on the students’ answers”* [MCT1]

b). **Students:** Based on teachers observed, the students have improved similarly. They mentioned that while applying IBL in the class, the students were fun, engaged and involved in the class activities such as, researching, discussion, and doing the presentation. The second Khmer Languages teacher said that, *“the students are not bored. They are happy to discuss and do the activities in the group as well as in the class. She continued, “Sometimes, they forget to watch the time until the bell rings, reminding them”* [KLT2].

Furthermore, IBL could help students to gain insight knowledge through group discussion, research, analysis, answering the questions as well as debate when the answering

the question is not appropriate or not reasonable. In addition, the students start to have critical thinking to find the answers. They do not believe something that is untrue or unreal (Abstract). They make decisions based on actual causes and reasons. The Khmer Teacher 1 said, *“They start to enjoy learning, they are happy because it is easy for them to understand, remembering because they can see, touch, catch, smell, test. They make decisions based on actual causes and reasons” [KLT1].*

### **B. Students:**

Not quite different from what the teachers have noticed, all students ' participants accepted that they have improved. They mentioned similarly that IBL engages them to be involved and active in the class activities. Furthermore, it helps them to understand the content of the lesson well and increase their knowledge from both books and different sources. A slow performing eleventh grade student said, *“we can gain knowledge not only for our study or for exams, but it is the general knowledge that is important for our daily life by reading the books and research from different sources to get well understand the lesson” [SPS: S7].*

Moreover, IBL provide the crucial benefit for them in term of boosting students' bravery, self-confidence, building an interaction throughout working in groups. A moderate-Performing eleventh grade student said, *“the relationship between teacher and students, students and students is much closer both during and after the classes” [MPS: S8].*

In addition, three participants said that they had shared what they have known, or the information that they have found to the classmate, being model for other students and help explain to other friends who the slow learner are. A high-performing tenth grade student said, *“I can share what I have known to my classmate and help the other classmate who are learn slower than me” [HPS: S3:]*

#### 4.3.1.2 After applying IBL

After applying IBL: All teachers who participated in this study had noticed that both students and teachers themselves have improved.

##### A. Teachers:

a) **Teachers:** it is not much different from while teaching but one teacher has raised up that, she could identify her points to improve and set up a strategy to develop it for the next time.

*From time to time, we can review and check our things to improve the weakness and then we start to think...which one we should keep, which one should we change. After that, we started to set up a plan to develop our teaching for a better quality, [MCT2].*

b). **Students:** Based on teachers observed that the students are improved on their knowledge from both books and research for further information from different sources. Moreover, they can understand and remember the meaning of the lesson well as well as their learning outcome are also better than the traditional method. One Khmer Languages teacher said, *“Regarding the content of the lesson, the students can remember well because they are the creator of the questions and the one to find the solution too” [KLT2].*

At the same time three teacher, Four out of five state that IBL could help students to improve their communication skill and changing the students’ behavior in positive way through the teamwork, pair work, group discussion and answering the questions in the class. While another two teachers have raised up, the students are flexible to deal with the problems and they can reflect, fast thinking and answering the question with critical thinking. One Khmer languages teacher stated that, *“they could debate when their teacher or*

*classmate provide inappropriate answers. They have critical thinking in making decision”*  
[KLT1].

## **B. Students**

After applied IBL, all students’ participant has noticed not far differences from each other that IBL is help them to improve on their leaning, promote high critical thinking, identify the key issue and problem- solving skill, help the students brave and self-confidence as well as build up a good relationship with the classmate through the group work. One high-performing eleventh grade student said, *“When we form a question and answer it by yourself, it makes me understand the lesson well it not like the remembering. Moreover, it helps me to keep good communicate with my classmate both inside and outside the class”*  
[HPS: S6]

### **4.3.2 Teachers Challenges and the Responses**

#### **4.3.2.1 Before teaching**

a) Before Applying IBL in the class: the five participants (Social science teachers) facing some challenges such as, four among five-teachers state that they are facing difficulty to find supporting material for teaching. Meanwhile three teachers also mention time management because the class has 50 minutes. Sometimes it is not enough to finish presenting all the groups and it may be delayed to the next session. Moreover, two participants have mentioned that the lesson plan is important, and we must plan it effectively unless our class may fail. In addition, one participant has raised the difficulty in finding the documents or sources to support the topic or lesson and most of sources are in English, not much in Khmer. Furthermore, a participant has raised up the challenges to find phenomena, pictures or prompting questions that related to the lesson objective, to identify the key question that covers the whole lesson. One History teacher said, *“IBL is good but it*

*is complicated. Sometime, I have to drop it out and switch to using another method” [HT1].*

On the other hand, a participant's concern about the IBL process is complicated. Sometimes, he must change to another method. While the other rest concern is about the electricity cut off or have some disturbances from outside factors.

#### **a) Responses to the problems that happened above**

To deal with all the problems above, there are some solutions that the teachers has been used such as 1) Regarding the lack of material, the solution that has been used is that we can reuse the material that we already have and keep creating more. On the other hand, we had raised this concern in the technical subject meeting; we can share ideas and borrow material from each other. Moreover, we also need to be flexible. If we cannot use LCD, slide, we can move the class to the subject room or library when the electricity is cut off. 2) Regarding time management, the solution from the participants is similar, firstly, they have set the time for the group activities. At the same time, they must be flexible to switch the levels of IBL by giving the questions and clues to them. One Moral- Civic Teacher stated a moral, *“As I have mentioned, IBL has three levels if we know that we cannot apply to level three so can apply level one or level two instead” [MCT1].*

3) If it is hard to let the students identify the key question, we can give the key question and let them discuss, research from the internet, book, or YouTube then let them present to the whole class. Make sure we can reach our lesson objective. Similarly, If IBL is complicated for this topic; we can change to apply other method instead of it.

### **4.3.2.2 While teaching**

#### **A. Teachers challenges and the responses**

a) While applying IBL in the class: there are some challenges that the teachers frequently facing with such as:

Four among five teachers were concerned about the time. They state that IBL takes time. We have 45 minutes for the whole process. Hence, it may not be enough if we divide in many groups or answering the long question (big question). One Khmer Literature describe this:

*Related to the time, we have 45 minute some time, which is not enough for a long question (big question). The students need time to discuss research, analyze and do the prostration and answering the q& A section as well as record the lesson into the book, [KLT2].*

Next, three among five participants mentioned classroom management. A teacher states that it is hard to control due the students must move, to work in the group and do the activities. While another one teacher raised the table of the student's seat, it should be easy to move in the class (big and long table). In the same way, another one teacher, show about the difficulty in the classroom management is, in the group work there mixable of the students both study-hard, lazy, naughty, quiet. Therefore, the teacher must be serious about it. A Khmer Language teacher stated that, *“The table should be easy to move due to the students having to move in-group discussion as well. If it can move, it is easy for the students and it saves time too” [KLT1].*

Three out of five teachers indicated the challenges regarding the students' engagement. In the group work, some students are not active and do not cooperate with each other team members while they students push each other to do the presentation and sometime they return the work back.

Two teachers have shared the problems related to the Key question. A teacher stated that the key question of IBL is a high critical thinking question. It needs students to think deeply and analyze. That is hard for them. While another one has shared about the way that let the students create the key question by themselves. They create the key question that is deep, or sometimes it is far from what we have planned in the topic. A Moral and Civic teacher stated that, *“The students create the key question is Deeper than what we have plan to teach. They asked out of the topic that led to the overtime” [MCT2].*

#### **b). Responses to the problems that happened while applying IBL above**

Four among five agree that teachers must be flexible and good at facilitation while encouraging and motivating students to be engaged and involved in the class activities are also raised up.

*Teachers need to be flexible in observing the students' facial faces, whether they understand or have any question or not. We can walk around and check the work or sometimes ask the question. Make sure they understand what they are going to do, [KLT1].*

Regarding the time management, three participants responded similarly that teachers must set a specific time for the activities. In the same way, another teacher allowed the students to present 2 or 3 groups first and the rest may be next session. In addition, another one teacher shared his solution to let the students work in the group effectively. He must mix students in the group such as, outstanding, moderate and the slow learner, and select one of them to do the presentation.

#### **B. Students challenges and the responses**

a). While learning through IBL Method: Not far different from teachers, while applying IBL in the class, there are some challenges that the students' participant are frequently facing with such as:

Firstly, most of the students mentioned that it is hard to find answers or information from different sources as well as define the key term or technical world in English on the internet because most of the information is in English. There is not much in the Khmer language. Yet, their English is limited. Moreover, some information that they found is just similar, but it is not specific on what they want. However, only one-participant states one of his challenges is, learn faster than what teachers have taught. Therefore, it makes him bored and sometimes he asks the questions out of topic (big or deep-thinking questions or sometimes the question that the teacher has not yet taught). One of the students stated that, *“the information that we need does not have much in Khmer. We need to find it in English and then translate it to Khmer. Sometimes we cannot find the right meaning of it”* [Participants SMP: S2]

Secondly, all the participants' state about the problems regarding teamwork (some members do not understand the lesson, network problems, busy, laziness...) that some members in the group are not get involve in-group activities. A slow performing students said that, *“Teamwork: Sometimes it is difficult, some group members, if they don't understand, we can help to explain and then work together but some members are lazy and do not help and some team members are not brave enough”* [SLP: S1]

Thirdly, five among them stated IBL required time to discuss, to research, to do the present as well as answer the question and facilitate from the teacher, yet the time is only 45 minutes only for the whole learning process. In particular, they have many groups (four to five groups) and some questions are long (big questions). Hence, it takes time to find the answers that lead to not finishing all the groups on time. In addition, three participants also raised about the problems with internet connection. *“Sometimes the question is big. Hence,*



*we need to divide into the parts and help each other to find the answers. It takes time. After that, when we present, we could finish around two or three groups only” [SMP: S4:]*

**a) Response to the challenged that they have raised up above**

Firstly, in response to the difficulty in finding the information, key terms or technical worlds, they stated that it is not a big problem because they work in-group. They can discuss with each member in the group or ask some other friends who are smart learners as well as the teachers. Moreover, they can use the google translator to help translate too. Another way is to watch videos on YouTube instead of documents that they cannot find. One more thing, three out of them also mentioned about the solutions to the internet connection by finding a suitable place and the internet speed is fast.

Secondly, regarding teamwork: most participants provided a similar solution to delegate the task for each member to take responsibility. If some member-facing problem can be raised, each member in the team will help, explain and encourage each other. However, if some members did not take action or were not involved, they will block the name from the team and report it to the teacher. In the same way, one student participant raised that if a member did not do the task, he will automatically become the presenter unless he is reported to the teacher. In contrast, the solution above, a participant shared that, since he does not want to break the relationship in the group, when someone if one member did not do their task, the other members must help each other to complete it. He just motivates and reminds the members not to do like that again.

*Related to teamwork, if the member is busy and cannot help or do the task, we can tell him to do the presentation but if he is lazy, even if we remind him already but he still will not do it. The case we cannot help...we will block his name in the group and report it to the teacher [SHP: S9]*

Thirdly, five participants respond similarly to the time being short. Three students participants showed that, they have to share to work to each members' responsibility to find the answers as soon as possible. While one student raises up the idea about each member discussed in the group to identify the main points of the question or topic and provide detailed explanation when the presentation. In particular, one participant shared about the techniques to find the answers while the teacher allowed using the smart phone in the classroom.

*If the teacher lets us use the phone: we can reduce the number of phones in the group. For instance, if we know that this one is less focused on group work, we can assign him to read the book to get information while let the one who works hard in the group use the phone to research information [SHP: S9].*

#### **4.3.2.3: After teaching**

##### **A. Teachers challenges and the responses**

**a) After applying IBL in the class:** some challenges are not quite different from “while applying IBL”. However, two teachers have responded that there are not many challenges that have been notable. While another two teachers had shared that, some topics did not fit with the IBL method. Hence, applying methods based on the content of the lesson too. More importantly, they also stressed that they must change the method frequently to prevent students from feeling bored.

Moreover, teacher participants have stated that some students may feel disappointed after getting the result. Moreover, some groups submit the assignment late. More importantly, one teacher has shared concern that most of the time, the students who are

answering the question are the same while the others just listen and note (not many students answer the question).

**b). Responses to the problems that happened after applying IBL above**

Three participants agree that Encouraging and motivating students is play very important e. In addition, two teachers are raised up the solutions by using differences method in asking question and call the student to answer. *“Encourage and motivate students to share their ideas. Use a different method to call the student answering the question such as count number, let the students call to the next...and some time we can use the classroom role to manage” [MCT1].*

**B. Students challenges and the responses**

a). Most students faced some similar challenges after applying IBL. Five of them said mostly with too much homework and some from different subject teachers that lead to overload, and they cannot submit it on time for the teachers. However, three more participants mentioned that it is not frequent that homework is overloaded but it is just sometimes. Furthermore, three participants raised up about the relationship in the group after learning through IBL that some members who are not involved in the group work are not happy and disappointed when the group members blocked their name and reported to the teacher. Yet, one participant stated that he has problems with his eyes because IBL required reading and researching a lot.

*I got problem with my eyes. I read and searched for information for a long time through the phone or computer. Therefore, it made my eyes hot, red and teardrop (eyes drop). I have to wear glasses to prevent the bright light from my computer and phone, [SLP: S7].*

**b). Responses to the problems that happened after applying IBL above**

The participants are provided some solutions regarding the challenges above such as,

- 1) have a lot of homework: four of them respond by prioritizing the work depending on the deadline. They prioritized completing the work that is near the deadline or very necessary first and then do the next one gradually. More importantly, two of them raised the idea that some time they must learn overnight. While one told that, he may skip meals with the family.
- 2) Team work: they replied in different ways. one respondent said she doesn't care and the other one stated that he still keeps encouraging and motivating to be involved in the class activities while other response she said act as usual. *“If I know that, they are getting angry, disappointed and do not want to talk with me, I still keep talking and make fun with them as usual. Few days later our relationship will be come back as usual” [SMP: S2]*

#### **4.4 Teacher and Students Perception toward IBL Method in Social Sciences Subjects**

Responses to the key research question number two that stated, **“What is the teachers and students’ perception of implementing IBL in a social science classroom?”** Based on the answers from both teachers and students who participate in this study shown that, both teachers and students agree that IBL is a useful methodology for helping them to increase and develop their knowledge (learn new things and get information from different sources), skill (researching, communicating, problem solving skill..) Attitude (high critical thinking, good relationship and teamwork...) and it is fit to the social science subjects.

##### **4.4.1: Teachers**

All the five participants think that IBL is a good method that helps students to be an active learner, easy to understand the content of the lesson and help students to build a habit of self-learning. However, three of them mentioned that the teachers must be flexible and cannot apply IBL all the time. They have to change the teaching methodology quite often to prevent student boredom.

*I think it is much better than the traditional method. It is good for both students and teachers. It is easy for the students to understand due to the fact that, they can catch, touch, and smell. The students play the role as the researcher and presenter, and they have high accountability of the students on their task too. [KLT1].*

Furthermore, all the teacher participants are agreed that IBL is fit to the social science subjects in similar way because IBL help the students to be active and they play very important role in the class, they are learning by doing not like the traditional teaching. A Moral and Civic teacher said, *“I think...It is really fits with the social science subjects. When we apply IBL, the students can find the key issue, find the source or solution to deal with it by themselves, and they are not depend on the teacher all the time” [MCT2].*

#### **4.4.2: Students**

Based on the responses from the students’ participant overview, seven of them accepted that it is good if their social science teachers apply IBL in teaching. All the student participants totally agreed that, through learning by IBL, it could make them happy to learn more social science subjects than before. However, two of them mentioned that learning through IBL has both positive and negative impacts. They state the advantage of learning through IBL approach is that it increases their knowledge through research. It engages the students to get involved in the class activities. It makes them easy to understand the lesson because they are learning by doing, good communicate and close relationship with each other and so on so fault. Yet, the negative that the two participants raised is that it takes time to research, critical thinking and need to take note and record the book. The students mentioned that:

*Yes, it makes me more interested in studying social science. For instance, since I was in grade 7, my result is poor but after the teacher used IBL in teaching, I can research before the class. Therefore, I can understand the lesson better than before, [SHP: S3]*

## **CHAPTER 5: DISCUSSION**

In accordance with the findings in this research study, the researcher mainly explored three key components, such as the process of applying IBL in teaching, the advantages and challenges of applying IBL, and the teachers and students perception toward the application of IBL in the classroom. All these elements are discussed through the lens of literature review.

### **5.1 What is ‘the Process of Applying IBL in Classroom?’**

Normally, different teachers have different views and teaching styles even though they use the same teaching methodology depending on their techniques, and pedagogical talents. However, in the classroom, teachers eventually apply the method similarly. Regarding the findings from participants, IBL is a useful teaching methodology that can help students to be active, self-learning and confident. Moreover, it also promotes high critical thinking and at the same time, the role of teacher in the class has been reduced and replaced by students, learning by doing. At the same time, the teacher can accomplish the learning objectives of the lesson as well. Yet, the teacher has to be flexible to change the teaching methodology to avoid students' boredom as well as based on the content of the lesson. For instance, some lessons are fit with IBL, but some lessons are fit with Jigsaw, with Gallery walk method and so on and so forth. A good teacher in this 21st century and in the digital era requires many components of a teacher's quality. Teachers must understand the students' context, their learning style and keep learning with them (Vicheanon & Vicheka, 2021). Moreover, the participants shared the common sense that IBL can apply in different levels in the classroom, Level 1 both teacher and students work closely together to reach the lesson objective. Level 2, the teacher gives the key question, and the students discuss and do the research to find a solution. Next, level three; it is the highest level of IBL. The students must

identify the key question or issue and do the research to find a solution by themselves. The teacher is just the facilitator in this process.

## **5.2 What are the Advantages and Challenges of Applying IBL in Social Science Classroom?**

Although IBL are utilized in social science classrooms, there are some advantages and challenges occurred for both teachers and students.

### **5.2.1 Advantages**

Based on the findings from teachers' participants, firstly they must upgrade and increase their knowledge from time through the research, reading further documents from different sources. Next, they also mentioned that IBL helps them to improve their classroom management, facilitating skills that are very necessary for them due to IBL requiring students to work in groups or individuals to do the research, discuss, cooperate and sometimes have to move the chair to work in the group. Thirdly, the application of IBL in the classroom is very helpful for the teachers to gain insight into something new and help them to identify her points to improve and set up a strategy to develop it for the next time. Finally, yet importantly, the teachers' participants also mention stress that it pushes them to understand about this teaching methodology.

The result of this finding is Similarly to the study of Vicheanon and Vicheka (2021), they study found that A good teacher in this 21st century and in the digital era requires many components of a teacher's quality. Teachers must understand the students' context, their learning style and keep learning with them. Furthermore, the study from Laursen et al. (2011) also stressed that IBL help teachers enhancements to their teaching included, among other things, a better understanding of students and learning, stronger beliefs in the value of student-centered learning, and a larger and more nuanced portfolio of teaching skills. Other



advantages included intellectual stimulation as well as the affective advantages of interest, enjoyment, and pride in their students' progress.

### **5.2.2 Challenges**

Based on the findings from teachers' participants, firstly, they were faced with finding supporting materials for teaching. Supporting material is useful to help teachers to give the clue or propose key questions for the students as well as it is the tools to help teachers to save time in the application. Secondly, related to the time consuming. The application of IBL required time for the students to discuss, research, do the presentation and answers to the question at the end of presentation as well as the teacher facilitation. Meanwhile, the teachers divide students into groups, and they have 45 minutes to complete the teaching process. Sometimes there is not enough time to finish presenting all the groups and it may be delayed to the next session. Finally, regarding the classroom management. It may be hard to control due the students have to move, to work in the group and do the activities. On the other hand, forming a group of mixed ability students (both study-hard, lazy, naughty, quiet), required the teacher to take action and be more serious about it. In addition, a finding from three of five participants claimed that the key question of IBL in social sciences is a high critical thinking question. It needs students to think deeply and analyze. That is hard for them.

Similarly, Duran and Dökme (2016) found that the critical thinking level of the experimental group students taught with the IBL approach was found to be higher than that of the control group students who were instructed through the traditional lecturing method. In this regard, the IBL approach is more effective in improving students' critical thinking level. In the same way, the teachers' participants complained that, sometimes when the teacher lets the students create the key question; they create the key question that is deep or

far different from what the teacher have planned in the topic. The finding by Eltanahy and Forawi (2019), also stated not quite different, that the students are able to pose their own question depending on the observation of certain phenomena. And they prefer to provide students with a specific question or bank of questions to save the class time and to follow the procedures written in the textbook.”

### **5.3 What are the Teachers and Students Perception toward Applying IBL in Social Science Classroom?**

All five teachers who participate in this study agreed that IBL is a good teaching method that helps students to get more insight knowledge, builds a habit of self-learning, and reduces students stress because they have time to talk, discuss shared their ideas, and their perception to the whole class. In the same way, the teachers think that it is good for them too. Instead of teaching by preaching, they delegate the task to the students. The role of teacher has been reduced, and they can gain knowledge by researching the same as students do. However, the teachers have to master this method, be flexible and cannot apply IBL all the time. They must change the teaching methodology quite often to prevent student boredom. According to Eltanahy and Forawi (2019), the study found that inquiry implementation is an effective learning approach that enhances students’ learning because “the students become very active and motivated to learn; however, it requires long preparation to be implemented successfully.” Furthermore, they admitted, “inquiry instruction is very useful because it motivates all types of students to be engaged in the learning process, but teachers need more training to master its application.”

## **CHAPTER 6: CONCLUSION AND RECOMMENDATION**

This chapter throws light on what can be implied from the key findings and discussion points through the three research questions. The implication part consists of the effectiveness of IBL to the challenges and some solutions that have been used by the participants. The chapter concludes with a summary of the topic.

### **6.1 Conclusion**

In light of findings and discussion, they revealed that IBL is one among many effective teaching methodologies in the constructivist teaching and learning approach, which is popular for both teachers and students. IBL has become an important and useful teaching method, which has spread out into the teaching classrooms of the world. It plays a very crucial role in terms of helping teachers to continue and develop their content knowledge from time to time by research, create something new for teaching, improve the facilitating skill among the students as well as classroom management. Moreover, IBL helps teachers to accomplish the learning objectives of the lesson as well. Yet, the teacher must be flexible to change the teaching methodology based on the type of lesson as well as avoiding students' boredom. In addition, IBL also bring the positive impact to the students in term help them to increase their knowledge, easier to remember and catch up the lesson well, good at communicate, build relationship and teamwork, promote high critical thinking, identify the key issue and problem- solving skill as well as they are more bravery and self-confidence. Even though IBL is a useful teaching methodology, the challenges of using this method are still in teachers' concerns, such as lack of supporting material for teaching, over-time application (time management), difficulty in controlling students' group activities (classroom management), and diversity of students (different levels of learners). Furthermore, IBL is required for teachers or the students to identify the key question or phenomena as well as

teachers have to work hard and prepare everything, be ready beforehand and sometimes it is hard to find supporting documents from different sources while not so much information in Khmer language. However, the participants also provide some solutions to deal with all those problems that happened above such as: 1) Regarding the lack of supporting material, the teachers can consider the material in hand, borrow from each other, create or buy new for use. 2) Related to the time management, teachers should set a fixed time for each activities and be flexible to facilitate the appropriate levels of IBL. Moreover, putting a mixable student in the groups is also helpful and could save time. 3), regarding the difficult to find supporting material or key terms, the teachers can search it from the internet, form the book or can lead the class to the library or laboratory room. Teachers' follow up, facilitate, encourage, and motivate the students when necessary and play a very important role in all circumstances.

## **6.2 Recommendation**

According to findings of the study, a researcher would like to make the recommendation to following stakeholders.

### **6.2.1 School Committee Manager**

Teaching methodology is important for teachers to apply it in the class for a better teaching and learning outcome. To ensure that IBL is useful and effective in the class, the school principal or the school committee should train all the teachers to master the teaching method, promote and encourage them to apply it in the class wisely. At the same time, school committee should consider the help and support such as teaching methodology's guidebook to put in the library, material that necessary and other thing that required form teachers to enhance the teaching is working effectively.

### **6.2.2 Teachers**

IBL helps teachers to increase knowledge through reading and researching. In addition, IBL helps teachers to improve capacity in teaching, creating material for teaching, facilitating and problem-solving skills that are necessary for the teachers. Moreover, IBL required teachers to facilitate with students, build up a good communication and work closely together to achieve a goal and reach the objective of the lesson. Hence, every teacher, especially social science teachers, should consider applying this method in the class. In caution, not all the lessons are suitable with IBL, so the teachers should choose the lesson in a wise manner. In particular, to apply IBL effectively, teachers have to master this method, research, read and learn more about it, prepare material for teaching, manage the time and especially be ready for the class. However, the teachers should not use IBL most frequently or all the time because it could lead the students feel annoyed.

### **6.2.3 Students**

IBL makes the students become a self-learner active and high responsibility on their task, communication skills, and team spirit. In the same way, it helps students to identify the key problems, analyze and find the solution or answers, increase knowledge from different sources such as books, information from the internet, or YouTube and so on. In addition, the students should be active and involved in the class activities, complete the task with high commitments and responsibility.

### **6.2.4 Further Researchers.**

While IBL has advantages, it has many challenges too. The findings revealed in this study were basically covering only three subjects among six subjects in social sciences, and in particular teachers of Khmer literature, Moral and Civic and History and only a single

school program (New Generation School) at Preah Sisowath High School. Therefore, the next researchers should consider expanding more sample sizes from all subjects in social science (Khmer literature, Moral and Civic, History, Home-Economic, Geography, and English) with classroom observation to get more accurate data to generalize it.

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# APPENDIX A: QUESTIONNAIRE FOR TEACHERS

## New Generation Pedagogical Research Center

### Master of Education in Mentoring

**Topic:** Exploring Teachers and students' Perception: Effectiveness of Applying Inquiry Based Learning (IBL) in Teaching and Learning in Social science Subject at Upper Secondary School

I am KHAT Sareat, a second-cohort trainee of Master of Education in Mentoring at New Generation Pedagogical Research Center. The main purpose of this in-depth interview is to investigate teachers and students' perceptions on the effectiveness of implementing Inquiry Based-Learning approach (IBL) in Social Science Subjects. All of participants volunteer to join in this study and they have rights to skip the questions that they feel uncomfortable to give answers within the interview. More importantly, both students and teachers will be safe at whatever they answers (no threatening their examination, or losing any marks and so on). The information will be kept privately and anonymously.

#### I. Demographic Information

- 1.1 Name: \_\_\_\_\_
- 1.2 Gender: \_\_\_\_\_
- 1.3 Age: \_\_\_\_\_
- 1.4 Subject major (s): \_\_\_\_\_
- 1.5 Teaching experience \_\_\_\_\_ (year)
- 1.6 Number of class: \_\_\_\_\_
- 1.7 Grade (s): \_\_\_\_\_

#### II. Teachers' understanding of IBL and implementing in social science

- 2.1. Have you ever heard about IBL approach? If yes, where you get the information?
- 2.2. In your opinion, what does IBL mean?
- 2.3. Have you ever heard about the levels of IBL? If so, what are they? At what level of IBL do you think you have used in the classrooms?
- 2.4. Could you please describe the process of IBL, which you have implemented?
- 2.5. Could you please describe your roles and your students' roles in IBL procedure?

### **III. Positive outcomes in the process and after IBL implementation**

- 3.1 In the process of using IBL, have you noticed any improvements from students?
- 3.2 In the process of using IBL, have you noticed any improvements of yourself?
- 3.3 After the process of using IBL, have you noticed any improvements from students?
- 3.4 After the process of using IBL, have you noticed any improvements of yourself?

### **IV. Challenges of using IBL in classrooms**

#### **a. Before the process**

- 4.1 Before the process of IBL, have you faced any challenges?
- 4.2 How have you dealt with those challenges?

#### **b. In the process**

- 4.3 In the process of IBL, have you faced any challenges?
- 4.4 How have you dealt with those challenges?

#### **c. After the process**

- 4.5 After the process of IBL, have you faced any challenges?

4.6 How have you dealt with those challenges?

**V. Teachers' perceptions of using IBL in Social Sciences**

5.1 Do you think IBL is a suitable approach in teaching social science subjects for upper-secondary level? Why or why not?

5.2 Would you recommend IBL to other teachers? Why or why not?

5.3 Do you have any comments or suggestion to improve your practice of implementing IBL?

*Thank you for spending your time to participate in this interview.*

## **APPENDIX B: QUESTIONNAIRE FOR STUDENTS**

### **New Generation Pedagogical Research Center**

#### **Master of Education in Mentoring**

My name is KHAT Sareat, a trainee student of Cohort 2 of Master of Education in Mentoring, New Generation Pedagogical Research Center. The main purpose of this semi-structured interview is to explore Students' Perceptions of Inquiry-Based Learning Applied in Social science subjects at Upper-secondary Level. All of participants are selected to join in this study and they have right to stop or reject to join at any time, before or within the interview. They will be safe whatever they answer (no threaten, fail their examination, or lose any marks and so on). All of the data will be anonymous and kept in confidential.

#### **I. Demographic Data**

1.1 Name: \_\_\_\_\_

1.2 Gender: \_\_\_\_\_

1.3 Age: \_\_\_\_\_

1.4 Grade: \_\_\_\_\_

1.5 Subjects learned at school: \_\_\_\_\_

1.6 Favorite subjects and reasons: \_\_\_\_\_

#### **II. Students' understanding of IBL and implementation in Social science subjects**

2.1 Do you like study social science subjects? Why or why not?

2.2 Has your social science teachers introduced any problems and then provided questions, asking students to work in groups to find answers or do the research and reported to the class?

2.3 Has your Social science teacher assigned students' roles clearly or students assigned their roles by themselves?

#### **III. Positive outcomes in IBL implementation**

- 3.1 In the process of the above kind of learning, have you noticed any improvements through this method?
- 3.2 After the process, have you noticed any improvements (for instance, more understanding, teamwork, test, practice, research, etc.)?

#### **IV. Challenges of IBL**

##### **a. In the process**

- 4.1 In the process of learning, have you faced any problems?
- 4.2 How have you solved those problems?

##### **b. After the process**

- 4.3 After the process, have you faced any problems?
- 4.4 How have you solved those problems?

#### **V. Students' perceptions of IBL in Physics course**

- 5.1 In your opinion, what do you think of inquiry-based learning your teacher has used in Social science class?
- 5.2 Do you enjoy learning Social sciences through IBL? Why or why not?
- 5.3 Do you have any comments or suggestion regarding IBL?

*Thank you for spending your time to participate in this interview.*



**មជ្ឈមណ្ឌលស្រាវជ្រាវគម្រោងសម្រាប់ជំនាន់ថ្មី**  
**NEW GENERATION PEDAGOGICAL RESEARCH CENTER**

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**សូមគោរពជូន**  
**លោក សម្បត្តិ សារី នាយករងមន្ទីរយុវជនក្រសួងសុខាភិបាល**

**កម្មវត្ថុ:** សំណើសុំអនុញ្ញាតឱ្យនិស្សិតឈ្មោះ **នាង សារីត** បានចុះប្រមូលទិន្នន័យស្រាវជ្រាវនៅ សាលារៀនជំនាន់ថ្មី វិទ្យាល័យព្រះស៊ីសុវត្ថិ ភ្នំពេញ ខេត្តសៀមរាប ថ្ងៃទី១៥ ខែមិថុនា ឆ្នាំ២០២១ ទៅ ករុណា ឆ្នាំ២០២១។

សេចក្តីជូនបានជម្រាបជូនក្នុងកម្មវត្ថុនាងលើ ខ្ញុំសូមជម្រាបជូនលោកនាយករងឱ្យបានជ្រាបថា កញ្ញា **នាង សារីត** ជានិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់អប់រំ ឯកទេសប្រឹក្សាគណនេយ្យ ជំនាន់ទី២ ខែ មធ្យមណ្ឌលស្រាវជ្រាវគម្រោងសម្រាប់ជំនាន់ថ្មី។ កញ្ញា មានគម្រោងចុះស្រាវជ្រាវទិន្នន័យលើប្រធានបទ **ការយល់ ឃើញរបស់គ្រូ និងសិស្ស ប្រសិទ្ធភាពវិស័យសិក្សាប្រឡង ពាក់ព័ន្ធនឹងការកែលម្អការបង្រៀន វិទ្យាសាស្ត្រ សង្គមនៅក្រសួងយុវជនក្រសួងសុខាភិបាល** ដើម្បីសរសេរសារណាបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់អប់រំ។ គោលបំណងនៃការចុះប្រមូលទិន្នន័យនេះ គឺដើម្បីប្រមូលព័ត៌មានសំខាន់ៗដែលទាក់ទងទៅនឹងប្រធានបទ ស្រាវជ្រាវនាងលើ។ លទ្ធផលនៃការសិក្សាស្រាវជ្រាវនេះអាចរួមចំណែកក្នុងការជំរុញឱ្យការរៀននិងបង្រៀន មានលក្ខណៈកាន់តែប្រសើរឡើងថែមទៀត។

អាស្រ័យរហូតមកនេះ សូមលោកនាយករងអនុញ្ញាត និងជួយសម្រួលដល់និស្សិតរូបនេះបានចុះ ប្រមូលទិន្នន័យតាមការសុំដូចមានក្នុងកម្មវត្ថុនាងលើដោយក្តីអនុគ្រោះ។

សូមលោកនាយករងទទួលនូវការគោរពបំផុតពីខ្ញុំ

**ប្រធានមជ្ឈមណ្ឌល**

**បណ្ឌិតសភាចារ្យ វណ្ណ វិបុល**

ឯកសារ មសគច.

អាសយដ្ឋាន: មហាវិថីព្រះនរោត្តម, វិទ្យាស្ថានជាតិអប់រំ, អគារ ៤, ក្រុងពោធិ៍សាត់, លេខទូរស័ព្ទ និងអ៊ីម៉ែល: ០១១៦៥៧០៣៨  
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**មជ្ឈមណ្ឌលស្រាវជ្រាវគរុកោសល្យជំនាន់ថ្មី**

**NEW GENERATION PEDAGOGICAL RESEARCH CENTER**

ថ្ងៃសុក្រ ២កើត ខែបឋមាសាណ ឆ្នាំឆ្លូវ ត្រីស័ក ព.ស ២៥៦៥  
ភ្នំពេញ ថ្ងៃទី១១ ខែមិថុនា ឆ្នាំ២០២១

**សូមគោរពជូន**

**លោក សម្ប កំសាន្ត នាយករងវិទ្យាល័យព្រះស៊ីសុវត្ថិ**

**កម្មវត្ថុ:** សំណើសុំអនុញ្ញាតឱ្យនិស្សិតឈ្មោះ **ខាត់ សារ៉េត** បានចុះប្រមូលទិន្នន័យស្រាវជ្រាវនៅសាលារៀនជំនាន់ថ្មី វិទ្យាល័យព្រះស៊ីសុវត្ថិ ក្នុងចន្លោះពីថ្ងៃទី១៥ ខែមិថុនា ដល់ថ្ងៃទី ៣១ ខែកក្កដា ឆ្នាំ២០២១។

សេចក្តីដូចបានជម្រាបជូនក្នុងកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូនលោកនាយករងឱ្យបានជ្រាបថាកញ្ញា **ខាត់ សារ៉េត** ជាគរុនិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់អប់រំ ឯកទេសប្រឹក្សាគរុកោសល្យ ជំនាន់ទី២ នៃមជ្ឈមណ្ឌលស្រាវជ្រាវគរុកោសល្យជំនាន់ថ្មី។ កញ្ញា មានគម្រោងចុះស្រាវជ្រាវទិន្នន័យលើប្រធានបទ **ការយល់ឃើញរបស់គ្រូ និងសិស្ស៖ ប្រសិទ្ធភាពនៃវិធីសាស្ត្របង្រៀន តាមបែបវិវេកដែលអនុវត្តចំពោះមុខវិជ្ជា វិទ្យាសាស្ត្រសង្គមនៅកម្រិតមធ្យមសិក្សាទុតិយភូមិ** ដើម្បីសរសេរសារណាបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់អប់រំ។ គោលបំណងនៃការចុះប្រមូលទិន្នន័យនេះ គឺដើម្បីប្រមូលព័ត៌មានសំខាន់ៗដែលទាក់ទងទៅនឹងប្រធានបទស្រាវជ្រាវខាងលើ។ លទ្ធផលនៃការសិក្សាស្រាវជ្រាវនេះអាចរួមចំណែកក្នុងការជំរុញឱ្យការរៀននិងបង្រៀនមានលក្ខណៈកាន់តែប្រសើរឡើងផងដែរ។

អាស្រ័យហេតុនេះ សូមលោកនាយករងមេត្តាអនុញ្ញាត និងជួយសម្រួលដល់និស្សិតរូបនេះបានចុះប្រមូលទិន្នន័យតាមការស្នើសុំដូចមានក្នុងកម្មវត្ថុខាងលើដោយក្តីអនុគ្រោះ។

សូមលោកនាយករងទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីខ្ញុំ

**ប្រធានមជ្ឈមណ្ឌល**

**បណ្ឌិតសភាចារ្យ ច័ន្ទ រ័ត្ន**

19/6

ឯកសារ មសតថ.

## **ឧបសម្ព័ន្ធ ខ៖ សំណើរសុំធ្វើការសម្ភាសន៍**

នាងខ្ញុំឈ្មោះ ខាត់ សារ៉េត ជានិស្សិតកំពុងសិក្សាបរិញ្ញាបត្រជាន់ខ្ពស់ឯកទេសប្រឹក្សាគរុកោសល្យនៅ មជ្ឈមណ្ឌលស្រាវជ្រាវគរុកោសល្យជំនាន់ថ្មីនៃវិទ្យាស្ថានជាតិអប់រំ ។ នាងខ្ញុំបាននិងកំពុងធ្វើការសិក្សាស្រាវជ្រាវ លើប្រធានបទ “ការយល់ឃើញរបស់គ្រូនិងសិស្ស លើវិធីសាស្ត្របង្រៀនតាមបែបវិវេកដែលអនុវត្តចំពោះមុខវិជ្ជា វិទ្យាសាស្ត្រសង្គមនៅកម្រិត មធ្យមសិក្សាទុតិយភូមិ” ដែលវាជាសារណាបញ្ចប់ថ្នាក់អនុបណ្ឌិតរបស់នាងខ្ញុំ។

### **១. គោលបំណងនៃការស្រាវជ្រាវ**

ការសិក្សានេះគឺមានបំណងស្វែងយល់អំពី ទស្សនៈយល់ឃើញរបស់គ្រូបង្រៀន និង សិស្សទៅលើការ អនុវត្តការសិក្សាតាមបែបវិវេកហើយកំណត់ពីគុណសម្បត្តិ និង បញ្ហាប្រឈមនៃការអនុវត្តការសិក្សាតាមបែប វិវេក។ ការរកឃើញនេះនឹងផ្តល់ព័ត៌មានសំខាន់ៗ និង ជាឯកសារយោងដែលមានមូលដ្ឋានលើភស្តុតាង សម្រាប់អ្នកពាក់ព័ន្ធផ្នែកអប់រំរួមមានអ្នកគ្រប់គ្រងគ្រូបង្រៀនអ្នកបង្កើតគោលនយោបាយ ក៏ដូចជាគ្រឹះស្ថាន សិក្សាដើម្បីជំរុញឱ្យសិស្សមានចំណាប់អារម្មណ៍ និង បន្តការសិក្សាតាមបែបវិវេក។លើសពីនេះ ការសិក្សាមួយ នេះអាចចូលរួមចំណែកក្នុងការលើកកម្ពស់ ការបង្រៀន និងរៀនប្រកបដោយប្រសិទ្ធភាពនាពេលអនាគត សម្រាប់ការអប់រំនៅប្រទេសកម្ពុជា។ការសិក្សានេះអាចនឹងក្លាយទៅជាឯកសារយោងដ៏សំខាន់សម្រាប់ការស្រាវ ជ្រាវបន្ថែមទៀតលើប្រធានបទនេះដែលនឹងផ្តល់អត្ថប្រយោជន៍ជាច្រើនដល់សិស្ស/និស្សិត គ្រូបង្រៀនក៏ដូចជា ស្ថាប័នពាក់ព័ន្ធ។

### **២. ដំណើរការនៃការសម្ភាសន៍**

ប្រសិនបើលោកគ្រូ/អ្នកគ្រូចូលរួមក្នុងការសម្ភាសន៍ នោះលោកគ្រូអ្នកគ្រូនឹងត្រូវសួរនូវសំណួរមួយចំនួន ទាក់ទងនឹងប្រធានបទស្រាវជ្រាវ។ ក្នុងសំណួរនីមួយៗអាចចំណាយពេលពី៣០ទៅ៤៥នាទី។ ដូចនេះការ សម្ភាសន៍អាចចំណាយពេលប្រហែល៣០ទៅ៥០នាទីហើយអំឡុងពេលសម្ភាសន៍ខ្ញុំនឹងថតសម្លេងដើម្បីជាភាព ងាយស្រួល។ ចំពោះឈ្មោះរបស់លោកគ្រូ/អ្នកគ្រូនឹងមិនត្រូវបានបង្ហាញក្នុងការស្រាវជ្រាវទេបើគ្មានការអនុញ្ញាត ពីលោកគ្រូ/អ្នកគ្រូហើយការថតសម្លេងនេះគ្រាន់ជាជំនួយសម្រាប់នាងខ្ញុំក្នុងការបកស្រាយទិន្នន័យប៉ុណ្ណោះ។



**៣. គោលការណ៍រក្សាការសម្ងាត់**

ព័ត៌មានទាំងអស់នឹងរក្សាការសម្ងាត់ ដោយមានតែអ្នកស្រាវជ្រាវតែម្នាក់ដែលអាចប្រើប្រាស់បាន។ វាមិនមែនជាតេស្ត ហើយក៏គ្មានចម្លើយខុសឬត្រូវដែរ។ ព័ត៌មានរបស់លោកគ្រូ/អ្នកគ្រូ ពិតជាមានសារៈសំខាន់ណាស់សម្រាប់ខ្ញុំ ហើយខ្ញុំសង្ឃឹមថាលោកគ្រូ/អ្នកគ្រូ អាចចូលរួមជាមួយការសិក្សាស្រាវជ្រាវនេះ។ វាជាជម្រើសរបស់លោកគ្រូអ្នកគ្រូបើទោះបីជាលោកគ្រូ/អ្នកគ្រូចង់ឬមិនចង់ចូលរួមក៏ដោយ។ ប្រសិនបើលោកគ្រូ/អ្នកគ្រូជ្រើសរើសចូលរួមជាមួយការសិក្សានេះ លោកគ្រូ អ្នកគ្រូមានសិទ្ធិមិនឆ្លើយសំណួរណាមួយឬបញ្ចប់ការឆ្លើយសំណួរនៅត្រង់ចំណុចណាមួយក៏បាន។

**៤. ការទំនាក់ទំនងមកអ្នកស្រាវជ្រាវ**

ប្រសិនបើលោកគ្រូ/អ្នកគ្រូមានសំណួរឬបញ្ហាណាមួយពាក់ព័ន្ធនឹងការស្រាវជ្រាវនេះលោកគ្រូ/អ្នកគ្រូអាចទំនាក់ទំនងមកកាន់ខ្ញុំដែលជាអ្នកស្រាវជ្រាវតាមរយៈលេខទូរស័ព្ទ 096 87 67 756 ឬអាស័យដ្ឋានសារអេឡិចត្រូនិក តេលេក្រាមដែលមានលេខទំនាក់ទំនងខាងលើ។

**៥. កិច្ចព្រមព្រៀងក្នុងការចូលរួម**

គោលបំណងរបស់ការស្រាវជ្រាវបានពន្យល់យ៉ាងច្បាស់ដោយអ្នកស្រាវជ្រាវហើយខ្ញុំនឹងចូលរួមក្នុងការសិក្សាស្រាវជ្រាវមួយនេះ។ ខ្ញុំដឹងថាខ្ញុំអាចឆ្លើយឬមិនឆ្លើយនូវសំណួរណាមួយដោយគ្មានពិន័យអ្វីទាំងអស់។

<b>អ្នកចូលរួម</b>
កាលបរិច្ឆេទ៖ _____
ហត្ថលេខា៖ _____
ឈ្មោះ៖ _____

<b>អ្នកស្រាវជ្រាវ</b>
កាលបរិច្ឆេទ៖ _____
ហត្ថលេខា៖ _____
ឈ្មោះ៖ _____

APPENDIX E

**ឧបសម្ព័ន្ធ គ៖ សំណើសុំធ្វើការសម្ភាសន៍ (សម្រាប់សិស្ស)**

នាងឈ្មោះ **ខាត់ សារ៉េត** ដែលជាគុរុនិស្សិតកំពុងសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ឯកទេសប្រឹក្សា គុរុកោសល្យនៅមជ្ឈមណ្ឌលស្រាវជ្រាវគុរុកោសល្យជំនាន់ថ្មីនៃវិទ្យាស្ថានជាតិអប់រំ។ នាងខ្ញុំបាន និងកំពុងធ្វើការ សិក្សាស្រាវជ្រាវលើប្រធានបទ “ការយល់ឃើញរបស់គ្រូនិងសិស្ស លើវិធីសាស្ត្របង្រៀន តាមបែប រិះរក ដែល អនុវត្តចំពោះមុខវិជ្ជា វិទ្យាសាស្ត្រសង្គមនៅកម្រិត មធ្យមសិក្សាទុតិយភូមិ” ដែលវាជាសារណាបញ្ចប់ថ្នាក់ អនុបណ្ឌិតរបស់ខ្ញុំ។

**១. គោលបំណងនៃការស្រាវជ្រាវ**

ការសិក្សានេះមានគោលបំណងផ្តល់ជូននូវចំណេះដឹងនៃការរៀនតាមបែបរិះរកដែលបម្រើឱ្យការ អប់រំជាមួយនឹងការផ្សារភ្ជាប់គ្នានាទីក្នុងការរិះរករវាងគ្រូ និងសិស្ស។ លទ្ធផលនៃការស្រាវជ្រាវនេះនឹងបង្ហាញ ជូននូវព័ត៌មានចាំបាច់ដែលពាក់ព័ន្ធនឹងមធ្យោបាយនៃការដាក់ឱ្យដំណើរការវិធីសាស្ត្ររៀនតាម បែបរិះរកក្នុង មុខវិជ្ជាវិទ្យាសាស្ត្រសង្គមក្នុងបរិបទប្រទេសកម្ពុជា។ ជាពិសេសជាងនេះទៅទៀតការសិក្សាស្រាវជ្រាវនេះនឹង ចង្អុលបង្ហាញពីការយល់ឃើញពិតប្រាកដរបស់គ្រូនិងសិស្សចំពោះវិធីសាស្ត្ររៀនតាមបែបរិះរកចំពោះ មុខវិជ្ជា វិទ្យាសាស្ត្រសង្គមមានលទ្ធផលជាផ្នែកក្នុងការសិក្សារបស់សិស្សក៏ដូចជាឧបសគ្គផ្សេងៗទៀតដែល រាំងស្ទះ ដំណើរការ រៀនតាមវិធីសាស្ត្រមួយនេះ។ ការសិក្សាមួយនេះ នឹងជាផ្នែកមួយដែលរួមចំណែកក្នុងការលើក កម្ពស់ការបង្រៀននិងរៀនមុខវិជ្ជាវិទ្យាសាស្ត្រសង្គមឱ្យកាន់តែប្រសើរឡើងសម្រាប់ការអប់រំនៅប្រទេសកម្ពុជា។ លើសពីនេះ ការសិក្សានេះអាចនឹងក្លាយទៅជាឯកសារយោងសម្រាប់ការស្រាវជ្រាវបន្ថែមទៀតលើប្រធានបទ ស្រដៀងគ្នា ដែលនឹងផ្តល់អត្ថប្រយោជន៍ជាច្រើនដល់សិស្ស/និស្សិត គ្រូបង្រៀនក៏ដូចជាស្ថាប័នពាក់ព័ន្ធ។

**២. ដំណើរការនៃការសម្ភាសន៍**

ប្រសិនបើអ្នកចូលរួមក្នុងការសម្ភាសន៍នោះអ្នកនឹងត្រូវសួរនូវសំណួរមួយចំនួនទាក់ទងនឹងប្រធានបទ ស្រាវជ្រាវ។ ក្នុងសំណួរនីមួយៗអាចចំណាយពេលពី ២ ទៅ ៥នាទី ដូចនេះការសម្ភាសន៍ អាចចំណាយពេល

ប្រហែល ៣០ ទៅ ៣៥នាទី ហើយអំឡុងពេលសម្ភាសន៍ ខ្ញុំសុំថតសម្លេងដើម្បីជាភាពងាយស្រួល។ ចំពោះ ឈ្មោះរបស់អ្នកនឹងមិនត្រូវបានបង្ហាញក្នុងការស្រាវជ្រាវទេ បើគ្មានការអនុញ្ញាតពី អ្នកហើយការថតសម្លេងនេះ គ្រាន់ជាជំនួយសម្រាប់ខ្ញុំក្នុងការបកស្រាយទិន្នន័យ។

**៣. គោលការណ៍រក្សាការសម្ងាត់**

ព័ត៌មានទាំងអស់នឹងរក្សាការសម្ងាត់ ដោយមានតែអ្នកស្រាវជ្រាវតែម្នាក់ដែលអាចប្រើប្រាស់បាន។ វា មិនមែនជាគេហទំព័រ ហើយក៏គ្មានចម្លើយខុសឬត្រូវដែរ។ ព័ត៌មានរបស់អ្នក ពិតជាមានសារៈសំខាន់ណាស់សម្រាប់ ខ្ញុំ ហើយខ្ញុំសង្ឃឹមថាអ្នក អាចចូលរួមជាមួយការសិក្សាស្រាវជ្រាវនេះ។ វាជាជម្រើសរបស់អ្នក បើទោះបីជាអ្នក ចង់ឬមិនចង់ចូលរួមក៏ដោយ។ ប្រសិនបើអ្នកជ្រើសរើសចូលរួមជាមួយការសិក្សានេះ អ្នកមានសិទ្ធិមិនឆ្លើយ សំណួរណាមួយ ឬបញ្ចប់ការឆ្លើយសំណួរនៅត្រង់ចំណុចណាមួយក៏បាន។

**៤. ការទំនាក់ទំនងមកអ្នកស្រាវជ្រាវ**

ប្រសិនបើអ្នកមានសំណួរឬបញ្ហាណាមួយពាក់ព័ន្ធនឹងការស្រាវជ្រាវនេះអ្នកអាចទំនាក់ទំនង មកកាន់ខ្ញុំដែលជាអ្នកស្រាវជ្រាវតាមរយៈលេខទូរស័ព្ទ០៩៦៨៧៦៧៧៥៦/០១២៧៥២៦៤៧ឬអាស័យដ្ឋានសារ អេឡិចត្រូនិក [khat.saret.hs.moeys.gov.kh](mailto:khat.saret.hs.moeys.gov.kh) ។

**៥. កិច្ចព្រមព្រៀងក្នុងការចូលរួម**

គោលបំណងរបស់ការស្រាវជ្រាវបានពន្យល់យ៉ាងច្បាស់ដោយអ្នកស្រាវជ្រាវហើយខ្ញុំ នឹង ចូលរួមក្នុងការ សិក្សាស្រាវជ្រាវមួយនេះ។ ខ្ញុំដឹងថាខ្ញុំអាចឆ្លើយឬមិនឆ្លើយនូវសំណួរណាមួយ ដោយគ្មានពិន័យអ្វីទាំងអស់។

<p><b>អ្នកចូលរួម</b></p> <p>កាលបរិច្ឆេទ៖ _____</p> <p>ហត្ថលេខា៖ _____</p> <p>ឈ្មោះ៖ _____</p>
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<p><b>អ្នកស្រាវជ្រាវ</b></p> <p>កាលបរិច្ឆេទ៖ _____</p> <p>ហត្ថលេខា៖ _____</p> <p>ឈ្មោះ៖ _____</p>
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# Empowering educators with ethical and evidence-based practices



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